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RECOMMENDATIONS OF THE GARRISON DIVERSION UNIT COMMISSION

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HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER RESOURCES

OF THE

COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

FIRST SESSION

ON

H.R. 1116

RECOMMENDATIONS OF THE GARRISON DIVERSION UNIT COMMISSION AND H.R. 1116, A BILL TO IMPLEMENT CERTAIN RECOMMENDATIONS OF THE GARRISON DIVERSION UNIT COMMISSION PURSUANT TO PUBLIC LAW 98-360

HEARING HELD IN WASHINGTON, DC
FEBRUARY 28, 1985

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RECOMMENDATIONS OF THE GARRISON DIVERSION UNIT COMMISSION

To Implement Certain Recommendations Made Pursuant to Public Law 98-360

THURSDAY, FEBRUARY 28, 1985

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER AND POWER RESOURCES,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, DC.

The subcommittee met, pursuant to call, at 9:45 a.m., in room 1324, Longworth House Office Building, Hon. George Miller (chairman of the subcommittee) presiding.

Mr. MILLER. The subcommittee will now turn its attention to the hearing at hand this morning, which is the Garrison Diversion Unit of North Dakota.

This morning the subcommittee will consider the findings and recommendations of the Garrison Diversion Unit Commission and H.R. 1116, legislation introduced by Congressman Dorgan to implement certain recommendations of the Commission.

[EDITOR'S NOTE.—The final report of the Garrison Diversion Unit Commission may be found in the appendix. See table of contents for page number.]

Mr. MILLER. As most of you know, the Garrison diversion project has had a long and controversial history and has been the subject of many lawsuits, congressional investigations, and international disputes. The Garrison Diversion Unit Commission was established by Congress last year when it became clear that funding for the presently authorized project could no longer be assured.

The directive given the Commission by Congress was unusual and, in fact, it was extraordinary. First, Congress explicitly recognized North Dakota's need for water resource development as compensation for the State's contribution to the Pick-Sloan Missouri River Basin project. Second, Congress noted that the State has its own unique agricultural and municipal water needs which are not being met now and which probably could not adequately be met by the Garrison project as presently authorized.

Finally, perhaps most importantly, the Commission was directed by Congress to propose water development alternatives which would lead to an early resolution of the problems which have for so many years been associated with Garrison.

While there are some who will find fault with the recommendations of the Garrison Commission, I think that we can all agree that the 12 members of the body performed in an exemplary fashion and accomplished a great deal in a very short time.

In its short lifetime, the Commission held three public hearings in North Dakota, received testimony from politicians, technical experts, farmers, tribal leaders, bureaucrats, environmentalists, engineers, and private citizens. The contributions made by the Commission should not be overlooked.

The purpose of today's subcommittee hearing is to receive testimony on the Commission's recommendations which were transmitted to the Secretary of the Interior and to the Congress last December 20.

In addition, we will also welcome the statements on H.R. 1116, legislation introduced by Congressman Byron Dorgan to implement those parts of the Commission plan which are not currently authorized for construction.

I want to emphasize at the outset that we are not here today to rehash all of the old arguments which led to the creation of the Garrison Commission and which were aired in considerable detail before that Commission. Our purpose is to build a solid public record of opinion on the recommendations of the Garrison Commission which can be placed before the Congress for its consideration later this year.

I want to assure you that I will not be shy about reminding witnesses to stick with this agenda. We are here to work toward the solutions which are responsive to the State's needs for water resources development and not to open up old wounds.

In that spirit, I will ask the witnesses to summarize their oral testimony to the best of their ability. Their written statements will be included in the record in their entirety.

Before proceeding to our first witness, and without objection, let us have printed at this point in the hearing record, a copy of the bill, H.R. 1116.

[The bill, H.R. 1116, follows:]

99TH CONGRESS
1ST SESSION

H. R. 1116

To implement certain recommendations made pursuant to Public Law 98-360.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 19, 1985

Mr. DORGAN (by request) introduced the following bill; which was referred jointly to the Committees on Interior and Insular Affairs and Foreign Affairs

---

A BILL

To implement certain recommendations made pursuant to Public Law 98-360.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the recommendations made by the Garrison Diversion Unit Commission, hereinafter "Commission", pursuant to the mandates of section 207 of Public Law 98-360, concerning the contemporary water development alternatives for the State of North Dakota are in substantial conformance with the authorized plans for the Garrison Diversion Unit except as specifically modified by this Act. Further, the Garrison Diversion Unit, as altered and supplemented by this Act reflects the entitlement of the State of North Dakota to a federally funded water development program as compensation for North Dakota's contributions to the Pick-Sloan Missouri River Basin Program.

SEC. 2. (a) Any investment related to full design capacities of features that are no longer employed pursuant to the recommendations of the Commission shall be absorbed as a reasonable cost of satisfying the Federal obligation to the State of North Dakota and therefore will be nonreimbursable. The costs, already expended, for these features are calculated to be $35,920,000. If the full capacities of those project features are used in some future expansion of the project, those nonreimbursable costs should be reassigned to purposes for which the features are used. The reimbursability of any such features will be reconsidered at that time.

(b) The costs of construction, operation, maintenance, and replacement of the Sheyenne River release feature and water treatment plant will be nonreimbursable. Costs of these features shall be deemed attributable to meeting requirements of the Boundary Waters Treaty of 1909.

SEC. 3. The irrigation units known as Lucky Mound, Upper Six Mile Creek, and Fort Yates, located on and within the boundaries of the Fort Berthold and Standing Rock Indian Reservations, are hereby authorized as a part of the Pick-Sloan Missouri River Basin Program subject to the finding by the Secretary of the Interior of irrigability of the lands. Repayment for such units shall be made pursuant to the Leavitt Act, 25 U.S.C. 386a.

Sec. 4. (a) Municipal, rural, and industrial water systems constructed by the Secretary of the Interior as part of the Garrison Diversion Unit shall utilize power from the Pick-Sloan Missouri River Basin Program, section 9 of the Flood Control Act of 1944, allocated to irrigation, at a rate equivalent to that paid by preference customers, for the operation of such systems.

(b) Repayment assistance for the municipal, rural, and industrial water systems capital costs shall be provided by reassigning a portion of the irrigation repayment assistance from the Pick-Sloan Missouri River Basin Program allocated to the Initial Stage of the Garrison Diversion Unit. This repayment assistance shall be provided, if necessary, in order that the monthly family cost for municipal water is no more than $10 higher than current obligations, or the amount needed to recover the costs of the operation and maintenance of the system, whichever is greater.

(c) Municipal, rural, and industrial water systems constructed by the Secretary for the Garrison Diversion Unit shall include systems to satisfy the needs of the Fort Berthold, Standing Rock, and Fort Totten Indian Reservations.

Sec. 5. The Secretary of the Interior, by and through the appropriate authorities of the United States, is authorized to enter into negotiations with the Government of Canada, in consultation with representatives of the Province of Manitoba and the State of North Dakota, to explore the establishment of a Binational Resource Development Program. Such binational mechanism should provide for a cooperative study, by appropriate agencies and independent entities, to define ways to exchange resources, including water, power, minerals, and markets to meet mutual needs. Additionally, prior to delivery of treated Missouri River water into the Hudson Bay drainage basin, the officials of the binational program should request a comprehensive inventory of fish species and pathogens present in Manitoban waters to be conducted by an independent international body to provide a baseline of current biota conditions.

SEC. 6. Nothing in this Act is intended to limit or expand the authorities of the secretary of the Interior except as expressly stated in this Act in regard to the Garrison Diversion Unit of the Pick-Sloan Missouri River Basin Program.

Mr. **Miller**. Our first witness this morning is my colleague from North Dakota, Byron Dorgan.

Byron, welcome to the subcommittee. We welcome your testimony and thank you for your involvement in this rather unique resolution of a long-time problem in the House of Representatives and look forward to working with you.

You are free to proceed in the manner in which you are most comfortable.

[Prepared statement of Hon. Byron L. Dorgan may be found in the appendix.]

STATEMENT OF HON. BYRON L. DORGAN, A U.S. REPRESENTATIVE FROM THE STATE OF NORTH DAKOTA

Mr. **Dorgan**. Thank you, Mr. Chairman.

I am here today to discuss principally H.R. 1116. I understand that the scope of the hearing is also open to discuss the entire Commission report. I have introduced H.R. 1116 as drafted by the Interior Department, resulting from the Commission's recommendations to the Interior Secretary on the Garrison Diversion project.

Let me indicate to you that following my testimony, among the witnesses today will be Governor George Sinner of North Dakota who is with us and I say that to tell you that those of us in North Dakota, Republicans and Democrats, Governors, Congressmen and Senators, are united in our support for a water project for North Dakota.

We don't view this as a partisan issue. We view the promise made to North Dakota as a promise that must be kept by the Federal Government and all of us intend to work together to make certain that occurs.

Let me, if I might, Mr. Chairman, very briefly give you a history of what has happened. Forty years ago, the U.S. Government came to North Dakota and said, "We want to build a series of dams and we would like you to host a permanent flood up there," and we said, "OK, but what do we get for it?" and they said, "We will give you all these costs and you get some benefits. The benefit is a long-term water resource program."

North Dakota played host to all the costs, expecting contractually and, from the Government's word, that it would expect certain benefits, including a major water resource development program. It is important to our State; we are a semiarid State, with 16 to 18 inches of rainfall a year—maximum, and major water resource programs are very important. This promise made 40 years ago, is critical, I think, to the State's long-term future and so 20 years after that, in 1965, this project was authorized.

Twenty years later, 1985, we are sitting in a subcommittee room in Interior trying to resolve the controversy that has surrounded this project for many, many years.

In an attempt to try and come to grips with some of the controversy, in the Senate last year, a provision was written in the appropriation bill that authorized the establishment of a Commission by the Secretary of the Interior. That Commission was established; it did hold hearings, as Chairman Miller indicated in North Dakota and in Washington. It took a great deal of testimony, came out with some recommendations that are very lengthy, very comprehensive.

The fact is I, the two Senators, the Governor and others didn't get all we wanted. I personally am disappointed with some of the recommendations of the Commission, but I am sure that almost everyone who is involved in this controversy would look at that Commission report and say, "You know, it falls short of what I would have expected had I written it."

We are at this point today with this Commission recommendation and my responsibility, it seems to me, and the responsibility of others who believe we ought to have a water project, we ought to take that Commission report and move it along through Congress, get the funding and get this water project complete for North Dakota.

In the process of doing that, we are required to authorize three features that the Commission recommended to Congress that are not included in the original authorization for the Garrison project. Those three features are comprised in the bill, H.R. 1116, that I presented to Congress and for which you have requested this hearing.

I would like to make a couple of what I think are very important points about this process. This Commission report is a compromise and one in which I said I was disappointed in some features; others have been disappointed in other features, but it is a compromise and a difficult one. We have people on both sides of this issue who feel very, very strongly about it.

I would hope that even though I personally don't think this Commission report is all that we ought to get, I understand that it is what was recommended; it is the vehicle now to try and move ahead and get this water project, so I would hope that as we move through this process in the Congress in 1985, that we don't add or delete so much that we unravel this compromise. None of us want to go back to ground zero here. We want to move ahead and get what is promised us. We want to get a water project, not a promise of a water project 30 and 40 years from now.

So as we consider all of the various provisions in the report presented to the Interior Secretary and transmit it to Congress, I would hope that we would pay careful attention to trying not to do things that would unravel what is, I think, a delicate compromise.

There are things, however, in my judgment, that we could add or delete if all of the sides agree that those additions or deletions would improve the report. Let me give you an example. The Governor will present today a proposal for an M&I plan that the State has, which I personally support. I introduced this bill with the M&I plan that the Commission recommended, that the Interior Secretary transmitted to Congress, but I think that the State plan is a better plan. It costs the Government less money; gives the State greater flexibility. I don't think it has any environmental problems with it. I just think it is the kind of thing that we ought to consider very strongly for insertion into the Commission report if we can do that without unraveling that entire compromise. In my judgment, that would very likely be possible.

With that, Mr. Chairman, I would simply like to close by saying that the objective, I think, from the standpoint of those of us who represent the interests of North Dakota, interests that expect a water project that was promised us, is to try in 1985 to move beyond the last 5 to 10 years of serious controversy over this project; move something through the House and the Senate that will restore a long-term capacity to get funding for the next years that are required to get this project finally completed.

If we can accomplish that, I think we will have solved the riddle that has been confronting us for many years that some people felt was not a riddle that could be solved. We are out there in the middle part of the country; we have one voice in the U.S. Congress—Mr. Chairman, I think you have, 44 colleagues in the House from your State. This has been kind of an easy thing for people to pick on over the years. Some of the testimony that I have heard, some of the things on the floor about the project have just really been nonsense, but there have been some legitimate concerns expressed.

This Commission worked very hard to try and listen to everything everyone had to say about it and come to a compromise. It is not all we would like, but it is where we are and I want to work hard with you, Mr. Chairman, and see if we can't move this compromise into the realm of a real water project for our State's future.

I would be happy to answer any questions you might have.

Mr. MILLER. Thank you very much, Byron, for your testimony. I think it is fair to say that without your involvement, this Garrison project would not be as far along as it is. While there are people who are upset with the compromise, I think the alternatives were the Commission or no project. You have, to put it politely, leaned on a lot of people in this House to stick with this project until the Commission's work was completed instead of going the suggested deauthorization route. I think you are to be commended for that.

I think what is important from what you said, is that you are making the assurances to this committee that, in terms of—at least within the political structure of the State of North Carolina, there is unity——

Mr. DORGAN. North Dakota.

Mr. MILLER. There is unity around this compromise which is a substantially different than the authorized project. You only need to compare the features of the project to understand that.

Mr. DORGAN. Mr. Miller, if I were from North Carolina, this project would probably have been built.

Mr. MILLER. That is true. We wouldn't know where it was going, but it would be built. [Laughter.]

Mr. DORGAN. That's true. Let me just comment——

Mr. MILLER. Too much water and tobacco doesn't do well, you know. [Laughter.]

Mr. DORGAN. I will tell you what, there are a whole lot of water projects down South that get built in a hurry, but let me just explain the bipartisan comment I made.

I think that if you ask the Governor when he testifies, and the Senators, I am sure, would confirm this, we would all say, "Look, we are not crazy about this Commission report, but the alternative is accept this Commission report and move forward and get this built or not have any project in the State's future."

The result is, in a delegation meeting, we decided, "Look, our responsibility is to try and get what we can at this point," and that is the Commission report. That is our support for this. We want to move ahead now and get this done.

Mr. **Miller**. Thank you.

Mr. Strang.

Mr. **Strang**. Thank you, Mr. Chairman.

I certainly thank the gentleman from North Dakota for testifying and compliment your State and the Commission on the work they did. It shows that part of a loaf sometimes is better than nothing and the ability to come together is tremendous.

I have not had an opportunity to go over in total detail the financial implications, but I would like to recognize that North Dakota is talking about some important points. One of them is the promises of the Federal Government and the commitments made to the several States. Going back to 1944, there has been a commitment by this Nation to North Dakota to address this problem.

In addition, in the report, it says, "The Federal Government promises assistance in replacement of the economic base of the State and Indian tribes." The language in there is very dear to my heart because I am dealing with the same problem in the Southwest, in Colorado, northwestern New Mexico and northeastern Arizona. I am pleased to see an underscoring of the fact that we do have a serious commitment to the Indian tribes and we can't keep putting it under the carpet and walking away from it.

Aside from that, I have no other comments, Mr. Chairman.

Mr. **Miller**. Thank you.

Thank you very much for your presentation and your help.

The next witness will be Gov. George Sinner from the State of North Dakota.

Governor, welcome to the subcommittee, and again, your written statement will be placed in the record in its entirety and you proceed in the manner in which you are most comfortable.

STATEMENT OF HON. GEORGE A. SINNER, GOVERNOR, STATE OF NORTH DAKOTA, ACCOMPANIED BY VERN FAHY, STATE WATER ENGINEER

Governor **Sinner**. Thank you very much, Congressman.

My name is George Sinner. I am the Governor of the State of North Dakota and I appear here today to speak in favor of the legislation implementing portions of the Garrison Diversion Unit Commission's report to the Secretary of the Interior.

I think I should say publicly in front of the committee that I, too, thank the Commission for its long agonizing work. They were given a thankless task, as are many other such public assignments, and they know of my gratitude and respect for the work they did. I have to confirm what Byron has said; we have people in our State that are not only frustrated and disappointed, but are downright angry over some of the changes in the plan that were made in the Commission's report.

We are committed to make the most of it, to make it the most feasible and workable plan that we have, and with that in mind, I am going to bypass the earlier part of my written testimony and go right to the section of the Commission's report that deals with the municipal and industrial water projects.

I would like to discuss that portion of the Commission's recommendations. As you are aware, after the Commission adopted its final recommendation on December 14, 1984, the then Governor Olson and I submitted a joint proposal for M&I development as an alternative to the Commission recommendations for M&I development. The Commission sent our recommendation, along with its own, to the Secretary of the Interior on December 20, 1984.

Eleven of the 12 members of the Commission, we are told, liked it and said so. The Commission's own recommendation included $400 million worth of proposed municipal systems. It also recommended that the users of the proposed municipal systems pay the monthly M&I costs or $10 per month, whichever is greater.

Under the Commission's recommendations, the $10 minumum would not apply to municipal water users using water released into the Sheyenne and Red Rivers, specifically West Fargo, Fargo, and Grand Forks.

The Commission's M&I plan also recommended that Pick-Sloan Missouri Basin preference hydropower presently reserved for irrigation pumping purposes be made available for the Commission's M&I systems and that a portion of the irrigation repayment assistance from the initial stage of the Garrison Diversion Unit be assigned for municipal repayment assistance.

North Dakota felt compelled to try to refine the Commission's M&I recommendations. First, many of the cities in the Commission's recommendations will likely never see the benefits of the proposed municipal pipeline distribution systems since the proposed municipal systems contained in the Commission's recommendations were not based on willingness to pay, feasibility, ability to pay, or interest.

Second, the Commission's recommendations are inequitable in that some users would pay $10 per month while others would pay the total O&M costs. I should add, parenthetically, Mr. Chairman, that in some ways, I apologize—and I did so to the Commission—for not submitting this plan earlier, but we simply did not realize in advance that the Commission was going to come out with a recommendation like it did. We worked—almost the day afterwards, we began work to prepare what we hoped would be a better plan and would be acceptable to them. We did not, however, get it to them in time for their vote.

Let me briefly review how the North Dakota plan would work. The capital costs—North Dakota would determine which M&I systems are most feasible, most needed, most wanted and the ones that most deserve financial assistance. Projects would include municipal, rural and industrial projects and projects throughout the entire State would be eligible.

Congress would appropriate nonreimbursable money on a project-by-project basis for construction of these projects. The aggregate total of Federal dollars would not exceed $200 million.

Third, the State of North Dakota would be the entity to which Federal funds would be appropriated through the Bureau of Reclamation. It should be made clear that under the Commission M&I

plan, almost all the $401 million would be nonreimbursable since the $10 per month per family charge would only cover O&M costs.

Thus, the State M&I plan represents a $200 million reduction in Federal outlay. Each M&I project developed by North Dakota would require a 25-percent State cost share. We confess that the 25 percent is in some way arbitary, but it was proposed because many of the Farmers Home Administration rural water projects are funded on a 75-25 basis. Also, the WEB project in South Dakota is funded on a 75-25 basis. Thus, the proposed 25-percent State cost share is based on a clear precedence.

Second, the 25-percent State cost share would be provided as determined by North Dakota, either through State appropriations, local entities or both. It would, in fact, force us to be totally responsible.

Third, the 25-percent State cost share could include costs advanced or incurred for project design and feasibility studies which we think is also appropriate. The State cost share would ensure that M&I projects would be justified through need and local interests.

I am not going to go through the other parts of the proposal, Mr. Chairman, because they are specifics that are of no particular interest and can be reviewed by the committee as it wishes.

I respectfully ask that North Dakota's M&I plan be seriously considered. There is nothing devious here. It is simply our honest statement of what we believe is a better, more workable plan, both for us and the U.S. Government.

I repeat again that if what we were told by Governor Treen is correct, all but one of the Commission members agreed that it was a better plan and we sincerely solicit your consideration of it.

Thank you very much, Mr. Chairman, and members of the committee.

Mr. MILLER. Thank you, Governor, for that statement. I have had an opportunity to read your proposal on the M&I facilities and one of the other jobs I have in the Congress of the United States is to sit on the budget committee. I would say it certainly deserves a great deal of merit by this committee, the fact that it appears to be roughly $200 million cheaper.

Let me see if I understand it correctly. What you are suggesting is that this grant be made on a 25/75 sharing basis. You recommend the State have the right to make the determinations about which projects North Dakota would determine to be the most feasible. I also understand the State would determine which communities want projects the most and which are in need of them. That is how you want to be able to develop projects. The State does not want to be locked into decisions made by the Commission.

Mr. SINNER. Yes, sir.

Mr. MILLER. I assume you are telling us that you have some additional knowledge or better knowledge of the workings of the State with respect to which of those communities are better served by this project.

Mr. SINNER. Precisely, Mr. Chairman, and it goes beyond that. The demographics of our State are changing at a rate that are almost incredible. The credit crunch that has affected agriculture is hurting our electrical generation industry; it is hurting our petroleum industry, and the demographics are changing at a rate that boggle one's mind and to precast the M&I projects by Commission decision is both unwise and in many ways unworkable for us. That is another reason that we think this is an important facet of this.

Mr. **Miller**. As I understand your proposal, you are talking about your $50 million in terms of hard dollars.

Mr. **Sinner**. That is correct.

Mr. **Miller**. You are not talking about in-kind contributions or——

Mr. **Sinner**. If it were in-kind contributions of engineering on specific projects, we are talking about that, yes, sir.

Mr. **Miller**. So you are suggesting that you be given credit for moneys that would actually be spent on engineering those delivery facilities to those particular communities.

Mr. **Sinner**. Yes, sir.

Mr. **Miller**. What would be your requirement to do that under the Commission proposal?

Mr. **Sinner**. None as far as I know. As far as I know—the Commission proposal—I don't want to be absolute on this, but as far as I understand, we have no obligation to do that engineering under the Commission's proposal.

Mr. **Miller**. So the Bureau is responsible for that under the Commission proposal.

Mr. **Sinner**. That is correct.

Mr. **Miller**. If we accept either your proposal or the Commission proposal, we are still left with roughly $670 million in irrigation capital costs. We just had a visit from David Stockman yesterday in the Budget Committee, who delineated a whole series of programs in the President's budget that were on the block here for discussion with the Budget Committee. I just wondered if you would outline for us the rationalization that we should use to carry forward this $673 million—and I guess the cost is actually a little bit higher. In addition as I understand it, there are some 408 farms that would receive the benefits of this irrigation project under the Commission recommendation. I stand fully prepared to be corrected by you, either in the terms of the number of farms or what you perceive to be the dollar amounts.

Mr. **Sinner**. I think, first of all, Mr. Chairman, the $670 million does cover considerably more than irrigation, and if you would like, I will have our engineer, who is sitting here with me, comment on that. In regard to the long-term expenditure of money for irrigation, I think there is a strange myth that has concluded that the reason that agriculture is in trouble has something to do with long-term supplies of food.

The fact is, Mr. Chairman, that if you ever get a chance to look at what has happened to overall world supplies, you will see the most shocking set of numbers that you will have seen in a long time. In the last 25 years, world food reserves have dropped at an incredible rate. We now have, in terms of days of supply of food, less than half of what we had 25 years ago.

What has happened to American agriculture has not been an expansion of world food reserves on a global basis, but our inability to compete in a world market largely because of the overvalued

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dollar. The United States, 4 years ago, held about 40 percent of all the world's food reserves. Now we hold 65 percent of all the world's food reserves to add yet another burden on our ability to market. So the long-term demands for food are going to grow and become more acute. It is not poor planning, nor is it a poor or ill-advised expenditure to spend money for irrigation.

What actually is being spent here is infinitesimal compared to the original commitment. I will let Mr. Fahy give you those numbers.

Mr. **Fahy**. Mr. Chairman, I am Vern Fahy, State engineer for North Dakota. The remaining cost of the supply works and irrigations facilities in North Dakota under our recommended plan was $334,100,000. Under the Commission—plus the Indian lands—under the Commission's, including Indian lands, was $460.2 million.

The 600-and-something that you mentioned is inclusive in our plan.

Mr. **Miller**. That is the total cost of the irrigation——

Mr. **Fahy**. There are $334-plus million remaining costs of supply works and irrigation facilities, M&I, and under our plan of $20 million; fish and wildlife of $60 million; Indian lands irrigation of $60 million; Parks and Recreation of $8 million. Costs incurred to date, $213 million, for a total of 695 million.

Mr. **Sinner**. There are about $400 million in irrigation, $60 million of which is for the Indian lands and about $334 million for other——

Mr. **Miller**. OK, let's make sure we are working from the same baseline here.

What I am looking at is the final report of the Commission and I am looking on page 37. As I walk across the top line to the right hand side on irrigation, it says capital costs, $673 million; M&I, $401 million. Your suggestion, obviously, is that M&I be reduced to a different program encompassing $200 million in Federally related costs. So let's deal with the top line.

Mr. **Sinner**. What page, Mr. Chairman?

Mr. **Miller**. On page 37 of the report. It may that we can reconcile these figures if you subtract the sunk costs.

Mr. **Sinner**. I think the difference is between the project cost and the irrigation cost and the remaining costs.

Mr. **Miller**. All right.

Mr. **Fahy**. Let me explain why the figures are different because some of that money has already been spent.

Mr. **Miller**. What is the current status of those farms which would receive this water from the proposed project under the Commission's recommendations?

Mr. **Sinner**. Mr. Chairman, it would be pretty hard for me to identify them one by one or in any categoric way. Let me just say this. Neil Howard, the economist from Iowa who has done most of the studies on the credit crunch, told me on Saturday that he had just completed a review with the American Banking Association of North Dakota and found North Dakota to be about the worst of all the States, about equal with Iowa, in the number of farms that are in financial jeopardy.

We can identify about five groups of farms that are in trouble. The largest group by far is a group that has simply had a series of poor crops due to lack of moisture. So, to the extent that this——

Mr. **Miller**. Excuse me, I didn't mean the economic status. What I mean is, these lands that are yet to be irrigated currently are being used for what purpose? Are they being used for grazing; are the dryland farms; are they being used for wheat or what?

Mr. **Sinner**. They are dryland farms.

Mr. **Miller**. With what crops?

Mr. **Sinner**. Wheat principally, but in the southern part, other crops too. Some corn, some soybeans, some barley.

Mr. **Miller**. What would be the expectation of their crops if irrigation water is brought in?

Mr. **Sinner**. I don't anticipate any significant change in crop. Probably a little more toward the feed grains, but no significant change. I think the feed grain supply would indicate a better return right now, as with soybeans, and you will see some shifting back and forth as the market variability changes.

Mr. **Miller**. One of the things that I think the committee—and I just raise this in terms of the concern that we will have to deal with—I understand there are some 36,000 farms in North Dakota. I guess some of them will depend upon the outcome of the recent farm credit legislation and the help that these farms will be given. According to the Commission report, the beneficiaries of this project number roughly 408 farms. When I look at the cost of this project without dealing with your M&I proposal, it seems to me, given the long repayment period and the lack of an interest rate, we are talking about almost an additional billion dollars lost to the Federal Treasury.

When I see this directed at these 408 farms, I am just wondering to what extent the status of these farms would be changed in order to justify the project in economic terms. I am not talking about the political arguments. I am just trying to determine how we rationalize that at this particular time.

Mr. **Sinner**. Mr. Chairman, I, most of all, smypathize with all that you say because what I have said before, said this weekend to the President, my ardent belief that if the budget is not balanced, the economy of the productive sectors of this Nation are not going to survive.

That having been said, the long-term benefit of the nation argues well for this project. We didn't define the limited number of irrigated acreage in this plan. That is not our wish. We think that it is less than both justice and long-range wisdom argues for, but we are not going to reopen all of that. That has been discussed over and over again.

Yet, as you look down the road, the nations of Europe that have been short of food, that have finally understood how important is food production, have done all sorts of things like this. I know the dichotomy of that argument and appreciate the kind of position that you are in.

Mr. **Miller**. I appreciate that you appreciate it, but I just want people to understand the context in which we are receiving the Commission's report. Every Member of Congress is concerned about the budget and the need to reduce spending. It is a much different day and I think we simply have to bring these economic concerns to the forefront.

Mr. Strang.

Mr. **Strang**. Thank you, Mr. Chairman.

Thank you very much, Governor, for bringing your comments and wisdom to this body. I have a couple of questions. You have offered a substitute plan and so far there is a sense of unanimity in the State of North Dakota on this compromise.

Is the compromise acceptable with or without this substitute plan or do you fall apart at some point if you go back to the Commission report or what? How is the committee to understand how the State of North Dakota feels about which direction to go?

Mr. **Sinner**. There have been no parameters of accepting or rejecting. We want to move ahead, however imperfectly, and we have not said—this is not an ultimatum of any kind; it is a straightforward honest attempt to tell you that we think the plan is both unworkable and not all that well thought out. In my conversations with the Commission members, they readily agreed with that.

So I don't want to suggest to you that I am making an ultimatum. The furthest thing from that. There is nothing devious here. We aren't—someone suggested that we are trying to secretly and behind-the-scenes work in a way to build a loan-free reservoir. That simply is gobbledygook. There is nothing like that suggested here.

Quite frankly, Mr. Strang, part of the problem is that even though the Commission report talks about $401 million for M&I, nothing like that could probably be spent because there is no way you can pay for it and no way that it will work. So we are not even trying to suggest that this is, in fact, a cheaper program. It appears a lot cheaper to Congress and we are not—and that is another reason we like it. It doesn't have that huge number up front that to us is meaningless.

I am telling you the blunt truth. This is an attempt to put together something that is workable.

Mr. **Strang**. Thank you. I notice that you are quoted in the Washington Post as sharing our concern about the deficits and hope that as we walk through this process that concern will continue to reflect.

I have always been restless about people who put down dollars cost per irrigated acre because that is a copout in my view. There are so many other reasons for proper river management, that to assign all those costs per irrigated acre probably begs the question.

Mr. **Sinner**. I couldn't agree more. If you ever tried to calculate the endless recovery that that reservoir has brought to the States below us, you would multiply by so many times the anticipated benefits that were projected in the beginning that it would blow your mind, and to try to put some specific, definable, identifiable benefit to these expenditures is just not possible.

Mr. **Strang**. Thank you, Governor.

Mr. Chairman, I would ask unanimous consent that the record of this hearing be held open for 21 days to allow members to submit written questions to witnesses for the record and that all witnesses be requested to respond to such questions for the record.

Mr. **Miller**. Would the gentleman mind amending that to 10 days?

Mr. Strang. No problem, 10 days.

Mr. Miller. So people will respond to your questions. Otherwise, they tend to languish on people's desk when you send them out. Without objection.

Mr. Strang. The reason for that is that I do have some questions of the Governor and of the sponsor of the bill that I would like to ask relating to their philosophy of the management of rivers, among other things. Also, to try to understand this change in the thrust of dollars as it reflects on the actual outlay of the Federal Government in this project, looking at one proposal or the other. I need to understand that a little better.

Thank you, Mr. Chairman, I have no further questions.

Mr. Miller. Governor, if I might add, one of the important considerations for this committee in reviewing the Commission report and Mr. Dorgan's bill is whether or not you believe that this represents a satisfaction of that Federal commitment to North Dakota now in terms of water development projects.

Mr. Sinner. Mr. Chairman, the answer to the question is no, I don't think so. I am willing to accept it because I have to. Congress and the Commission made the decision and have to implement it. To go the next step and say I think it is a good plan is very difficult to do.

I frankly do not think that the alternative to the reservoir that has been suggested is engineeringly wise. It is certainly not wise over the long-term needs of both South Dakota and North Dakota. I don't think it is wise in terms of the M&I delivery of water to eastern North Dakota, but only scientific research into the implementation of it can ever establish that beyond the words that I have just spoken.

If in time the representatives of the Government of the United States, in doing that research and implementing it, find that, in fact, North Dakota's allegations from the beginning were correct, at that time, then, believe me, I will be here again to say that we think it should be changed. In addition to that, I have begun meetings with Premier Pawley to talk with the Canadians about their concerns and to try to bring to the relationships between the Canadian people and the people of North Dakota the best possible complexion because I tell you, as I mentioned earlier, we do have some very angry people and there are some things being suggested that are not without an attempt to get even. I have to deal with that; I have to make sure that reason prevails and I am doing everything I can to work in that regard. But I cannot in all honesty tell you that I think the Commission plan represents the best long-range good of either North Dakota or the U.S. Government, or of Canada, for that matter.

But I have to wait until scientific empirical research has established that and, believe me, at such time, I will be back.

Mr. Miller. Thank you.

Mr. Lehman.

Mr. Lehman. Thank you, Mr. Chairman. Thank you, Governor. Pardon my ignorance of the geography of North Dakota, although my mother is from Fargo—it just entered my mind—I have never been there.

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As I read the staff analysis yesterday, I was wondering—and I saw a difference of, I think, 250,000 irrigated acres that are recommended—that is what you want—and the Commission came up with 130,000 acres, scaled it back by 120. What is the character of that land right now? What is being done on it?

Mr. **Sinner**. Dryland farming, grains, principally. Some soybeans, some edible beans, but by and large, grains with a smattering of corn and soybeans.

Mr. **Lehman**. What will this new water do for that land that is not happening now?

Mr. **Sinner**. It will probably put more of it into corn and soybeans and feed grains, I would think.

Mr. **Lehman**. So you will change your cropping to more profitable and more intensive agriculture?

Mr. **Sinner**. I would think it will help quite a bit because corn is pretty hard to grow. If you look at world supplies of feed grains, they are down pretty low. The market is not stronger, even in spite of the dollar, because of the substitute value of wheat for feed grains at a certain point. In my judgment, there will be a shift to more corn. That will be more profitable, yes.

Mr. **Lehman**. Also, what do you recommend to be done on this problem with the Canadians? Obviously, you are going to have to drain the land. We have problems with drainage, it seems like, in every project we have in California.

What is your recommendation on how to deal with the Canadians, who obviously don't want that dumped in their rivers?

Mr. **Sinner**. Frankly I think very little quarrel with the Canadians. If you look back at the technical discussions that have gone on prior to the Commission, most of the problems were resolved. There will be some ongoing problems dealing with water, with some other relationship problems, taxes, to be perfectly frank, transmission lines. Those problems will endure, but believe me, I have spent most of my life working with neighboring jurisdictions and working out joint educational ventures, joint marketing ventures and working with the Premier of Manitoba and the Premier of Saskatchewan will be one of my foremost efforts and we will resolve our problems and work together.

Mr. **Lehman**. Do you think that those could be solved as the project is completed or once it is completed, or should they be resolved in advance of doing it?

Mr. **Sinner**. There will never be total resolution of such problems, Congressman. There will not be any water going into Canadian streams prior to the resolution and the satisfactory acceptance of that by the Canadians under this plan or any other.

As I understand, the present plan has been accepted by the Canadians. Any pursuance of a reservoir—the so-called Lonetree or anything like it—has been deferred by the Commission's report until such time as there is an agreement with the Canadians and we accept that. We understand the need for that.

Mr. **Lehman**. I guess we will be hearing from environmental groups later on today, but I just wanted your assessment of the impact that this would have on the wildlife situation.

Mr. **Sinner**. I think I will let Vern answer the wildlife questions because he is probably better informed than I.

Mr. **Fahy**. We have been working for some time with not only Canada, but with the U.S. Fish and Wildlife Service through a specially structured committee of Federal and State people known as Committee A. We did reach resolution of the mitigation plan for the project and was accepted by the Department of the Interior.

When the Commission report came along, it seems like we started all over again, so we will have to get involved in that particular issue again now with relation to this report.

Prior to this, we had reached resolution with Committee A and with the Fish and Wildlife Service.

Mr. **Lehman**. Thank you.

Mr. **Miller**. Thank you.

Thank you, Governor, very much for your time and your testimony.

Next, the committee will hear from Congressman Sil Conte, ranking member of the Appropriations Committee from Massachusetts. He has clearly been the catalytic agent in bringing about the Commission report.

Sil, welcome to the subcommittee and you can proceed in the manner with which you are most comfortable.

[Prepared statement of Hon. Silvio O. Conte may be found in the appendix.]

STATEMENT OF HON. SILVIO O. CONTE, A U.S. REPRESENTATIVE FROM THE STATE OF MASSACHUSETTS

Mr. **Conte**. Thank you, Mr. Chairman. It is really great to see you sitting there. Congratulations on assuming the chairmanship. I feel very comfortable knowing that you are chairman of this very important committee, and handling the critical issues surrounding the Garrison diversion project.

As the House of Representatives leading opponent of the Garrison diversion project in North Dakota, I certainly appreciate having this opportunity this morning to share my views on the recommendations of the Garrison diversion unit Commission and on the legislation needed to implement those recommendations.

With the chairman's permission, I would like to summarize my views at this time.

Mr. **Miller**. Without objection. Please go ahead.

Mr. **Conte**. Let me begin by pointing out that since December 1982, when the House of Representatives voted by a 100-vote margin to eliminate funding for the Garrison diversion project, the House has consistently zeroed out the money for this project. Appropriations for Garrison have been provided only because of Senate action. By an ever-declining margin, the Senate has voted to continue the project and has prevailed in that position in the conference between the House and the Senate.

I am proud to have been the leader of the fight against the currently authorized Garrison project and I am pleased that the continued opposition of the House to this project helped create the climate that made possible the establishment of an independent commission to review and attempt to resolve the ongoing controversy over the Garrison project.

I also want the record to be clear that unless significant changes in the Garrison project are implemented as recommended by the Commission, then I will have to continue to oppose the Garrison. I have every expectation that the majority of the House will join me in continuing to oppose the funding for the Garrison project as it is currently authorized.

Mr. Chairman, you and the other members of the committee are very familiar with the history, the mandate and the recommendations of the Garrison Commission, so I am not going to bore you with those, but I do want to share with you my overall view of the Commission's work and indicate my view of what needs to be done next.

Let me make clear at the outset that the Commission's recommendations clearly represent a compromise, and as such, they are far from perfect. They do, however, provide the basis for a project that will more effectively meet North Dakota's water resource development needs than did the old Garrison project, at a lower total cost and with less environmental damage. As originally conceived, the Garrison project would have flooded some 60,000 acres of prime prairie potholes. The Commission's plan would save 43,000 of these acres from being flooded.

The original Garrison project would have flooded 12 national wildlife refuges, while the Commission's plan would save 7 of those 12. In the Commission's plan, two of the most critical wildlife areas, the Kraft Slough and the Lonetree Valley, will be spared by not constructing the Lonetree or the Taayer Reservoirs.

In addition, the Commission's plan calls for wildlife mitigation on an acre-for-acre basis, rather than the less effective equivalence approach previously recommended by the Bureau of Reclamation.

The Commission found that agricultural irrigation features of the project were not cost-justified, a fact that has become even more obvious in recent weeks. In recognition of this fact, the Commission has scaled back the amount of irrigation and substituted needed municipal and industrial water supply features.

Finally, the Commission has recommended that no Missouri River waters be conveyed to the Hudson Bay Watershed except in such a way that will be acceptable pursuant to consultations between Canada and the United States.

These are all important and significant improvements and I strongly endorse them. Because this was a compromise effort, I do have reservations about some of the Commission's recommendations. Although the total cost of the project has been reduced to approximately $1.1 billion, I believe that is still too high. I understand that North Dakota may have a proposal for an alternative to the M&I water supply approach that would be less expensive, and I would suggest that it receive full and fair consideration by this committee.

I also have some reservations about the Commission's recommendation for financing the new project features out of the Pick-Sloan power revenues, and the interest rate assumptions to be used for such repayment. Nevertheless, we must recognize that this is a compromise plan; it is a significant improvement over the original 1965 project.

Let me just take a moment to comment on H.R. 1116, the implementing legislation drafted by the Bureau of Reclamation and introduced by the gentleman from North Dakota, Mr. Dorgan. First of all, let me say that Mr. Dorgan has been an able and worthy opponent of mine on the Garrison issue. He has been a tireless and effective advocate of North Dakota's water resource development interests. I look forward to working with him and with the committee to develop appropriate implementing legislation that will resolve the Garrison controversy once and for all.

As currently drafted, H.R. 1116 falls far short of what is needed. That bill simply grafts onto the 1965 authorization the M&I components of the Commission's report without recognizing the many Commission recommendations that cut back on the Bureau's authority to construct some of the most environmentally objectionable features of the project.

Such an approach, which would leave the Bureau of Reclamation with the discretion to build just about anything it wanted, from the old project to the old project plus M&I, or the new project and anything in between, will not resolve the Garrison controversy.

I cannot support any legislation that does not ensure that only a project consistent with the Commission's recommendations will be built. Our instruction to the Bureau must be absolutely clear on that point, and therefore, I recommend that the implementing legislation direct the Bureau and the Department to implement the Commission's findings and recommendations, make clear that the project features which the Commission recommended should not be built, will not be built; and limit the Bureau and the Department's discretion to constructing only those activities and project features recommended by the Commission.

I appreciate, Mr. Chairman, and members of the committee, your patience in giving me the opportunity to present these views to the committee, and will be pleased to work with the committee in any way I can to see that legislation which carefully and fairly implements the Commission's work and which we can all support, is developed and passed by the House of Representatives.

I have been pleased by how far we have come on this issue and how close we seem to be to a resolution of the issue. I hope that we can rapidly bring this controversy to a close.

Mr. MILLER. Sil, thank you very much for your testimony and I appreciate you taking your time—I know that the Appropriations Committee is currently meeting—to come over here and share your rather unequivocal thoughts on this project. I would just say that the concerns you have expressed will stay with the committee. We expect to work on this legislation with your full involvement and that of Congressman Dorgan. We appreciate the interest that you have taken and the obvious important role that you play as the ranking member of the Appropriations Committee. We look forward to working with you and your people on that committee in resolving this issue.

Mr. Strang.

Mr. STRANG. Also, thank you very much for coming. I know you are busy, Sil, but I think your comments are right on the money.

I would like to ask you one question. Did you hear the comments of the Governor with regard to an alternative plan that the State of North Dakota has proposed, a sort of substitute for a portion of the Commission's report?

Mr. **Conte**. No; I'm sorry I didn't because I got in late. I only heard the tail end of his statement.

Mr. **Strang**. Without taking much more of your valuable time, I will certainly ask you for your comments on that proposed compromise as it relates to your arguments and general support of the Commission recommendations.

Thanks for coming.

Mr. **Conte**. I did indicate in my statement that the committee should give full consideration to the State's compromise plan on M&I. Although I have not seen the details, it sounds promising.

Mr. **Strang**. Thank you, sir.

I have no further questions, Mr. Chairman.

Mr. **Miller**. Thank you very much for your testimony.

Mr. **Conte**. Thank you.

Mr. **Miller**. Next, the committee will hear from the Hon. Robert Broadbent, the Assistant Secretary for Water and Science in the U.S. Department of the Interior.

Bob, welcome to the subcommittee and we look forward to your testimony and you proceed in the manner in which you are most comfortable, please.

[Prepared statement of Hon. Robert N. Broa[illegible] may be found in the appendix.]

STATEMENT OF HON. ROBERT N. BROADBENT, ASSISTANT SECRETARY FOR WATER AND SCIENCE, U.S. DEPARTMENT OF THE INTERIOR

Mr. **Broadbent**. Mr. Chairman and members of the committee, first of all, let me tell you how much we in the Department of the Interior look forward to working with this committee. We recognize a new chairman of the committee and we would pledge our support to you and the members of the committee to furnish whatever information, any requests that you have that we can furnish, and would cooperate with you fully as you have the great responsibility of moving some of the water programs through Congress.

We would like to indicate to you, as Assistant Secretary for Water and Science, how pleased we are to have your involvement in the Water Resource Division of the Geological Survey and look forward to the appropriate time when we might present to you—I know they visited with you—but we might present to the members of the committee also some of the activities of the Water Resource Division in the U.S. Geological Survey.

Mr. **Miller**. We look forward to that.

Mr. **Broadbent**. If I could, I would like to submit my statement for the record and just make a few comments on this oversight hearing and also on the proposed H.R. 1116.

First of all, I would like to congratulate Congress for having the foresight to set up this Commission and to try and resolve the longstanding problems between competing interests as they try to reach a compromise on the commitment that the administration felt was given to the State of North Dakota in the adoption of the

Pick-Sloan plan and the subsequent adoption of the Garrison authorization.

We would like to again recognize the tireless work of the Garrison Commission, which met a series of times. I think it is rather remarkable that you could have a Commission of 12 people meeting four or five times and only have one time when you didn't have the full 12 at a meeting. I would like to congratulate Governor Treen and the members of that Commission for what I thought was a tough job in a very short period of time with some competing interests banging at their doors as they tried to come up with the recommendation.

I would like to say again that we support the work of the Commission and hope that the recommendations the Commission adopted will lead to the resolution of the water needs of the State of North Dakota. The law establishing the Commission directs the Secretary of the Interior to implement the recommendations of the Commission report consistent with existing authority. We feel that we have done that.

As you know, we went through an extensive review process. We identified about 120 recommendations in the Commission report and of those recommendations, we looked and identified those that were authorized and those that were not authorized, and we have been given direction by the Secretary to go ahead with the work on the authorized portions of the project as recommended and consistent with the existing authorizations.

On those parts that were not authorized, there was a recommendation from the Commission that we draft a piece of legislation which would implement those parts of the recommendations which were not authorized. I want to emphasize that point a little bit. We didn't look at ourselves as providing a drafting service to take care of any of the problems which might be in the Garrison legislation or anything else. Our attempt in drafting the legislation was to comply with the directive from the Garrison Commission which was to draft a bill which would authorize those parts of the recommendations of the Garrison Commission—which were not previously authorized. There was no further direction given to us and that is what we attempted to do.

I would like to say also to this that we have not taken an official position on the legislation which we drafted. I think that is clear in our message that came up We believe that these recommendations—the nonauthorized recommendations—are going to have to work their way through Congress. We recognized the North Dakota recommendation and even made it part of our recommendation as we attempted to see what should be implemented.

The administration is actively engaged in reviewing all of the issues. There are several issues in the proposed recommendation, particularly those that apply to the M&I plan and maybe to some of the Indian recommendations that are either policy setting or could be precedential in nature.

We recognize that and, as such, have not reached a full recommendation on those. When we have a full hearing on the bill, we would certainly be happy to give you our recommendations on the M&I plan.

With that, I would like to just indicate to you that we will fully cooperate with the members of this committee and any other committees of Congress as they try to reach a resolution of this tough issue called the Garrison project and the Garrison Commission recommendations.

Again, Chairman Miller, my congratulations to you and to members of the committee. I would be pleased to answer any questions.

Mr. MILLER. Thank you very much.

Let me ask you, it is your position that you will not draft legislation in light of the recommendation of the Commission, is that correct?

Mr. BROADBENT. I think we provided drafting service that did draft exactly what the Commission recommended. Now, we recognize that there may be other interests that need to be considered in legislation and we would be pleased to work with members of the committee in the drafting of that legislation.

Mr. MILLER. But you will not be proposing any additional legislation, independent legislation representing the Department's views on this subject?

Mr. BROADBENT. No, sir. Not at the present time.

Mr. MILLER. So just to again try and establish where we are in this process, it says in the Commission report: "The Commission also recommends that the Secretary propose enabling legislation to Congress by February 15, 1985"—that date has come and gone, and we should not expect that is what your testimony is telling us.

Mr. BROADBENT. Oh, no, we did. We submitted it as a drafting service and that is the bill that was introduced as H.R. 1116.

Mr. MILLER. All right.

Mr. BROADBENT. What can I tell you?

Mr. MILLER. Apparently not much. [Laughter.]

When will we know what the Department's position is on Congressman Dorgan's bill?

Mr. BROADBENT. Yes, sir. We have not reached a full position on it yet, Mr. Chairman.

Mr. MILLER. When would we expect that from you in this process?

Mr. BROADBENT. Well, certainly by the time there were any extensive hearings on the bill. [Laughter.]

Mr. MILLER. I think these are those hearings. [Laughter.]

I just want to admonish you to some extent that I hope this position does not compromise our ability to meet the recommendations of the Commission. We hope somebody doesn't later say that we didn't carry out that recommendation with respect to passing that legislation by the end of the 99th Congress. You are suggesting that that legislation is your drafting service. If the Commission recommendations later encounter problems, I don't need somebody in the Senate or in the House suggesting that we have failed to comply and require that we go back to the authorized Garrison Unit.

I just want to say that this committee is not buying that argument at this point because I will tell you why. Because the authorized Garrison Unit, I think as Congressman Conte pointed out, has little or no support. We are trying to meet with what is perceived to be a Congressional mandate here about the various roles of the

Department and of the Congress to enact legislation by the end of the 99th Congress.

There is no better place in the world at bootstrapping than the U.S. Congress. At some point, somebody is going to say you didn't really do what the Commission recommended. This bill doesn't meet that commitment; it doesn't fulfill that obligation, and therefore, we are back to arguing the authorized Garrison Unit.

Good luck to the people of North Dakota if that happens.

Mr. BROADBENT. Let me assure you that it isn't our intention to play any games on the Commission——

Mr. MILLER. I am not suggesting you are, but I am worried about whether your failure to propose an enabling piece of legislation to the Congress is in keeping with what the Commission has recommended. I am just raising that as a point.

Mr. BROADBENT. I think I can state for the record, sir, that we aren't going to come back on you again and say that we don't feel we have met that commitment and that the legislation has not been proposed.

Mr. MILLER. I am much more worried about my legislative colleagues telling me at some point that whatever this committee reports out is not, in fact, compliance. I raise the point to put people on notice.

What is your understanding of the cost related to irrigation. I single out irrigation because we don't know quite yet what we are talking about with respect to M&I. The State has made another proposal that should be given very serious consideration. With respect to the irrigation recommendations of the Commission, what is your understanding of what those capital costs would be that are attributed to irrigation over the project life?

Mr. BROADBENT. I think we addressed that already. In the recommendation of the Garrison Commission? Are you talking about——

Mr. MILLER. Yes. I assume that we will operate off of what they have made as their recommendation.

Mr. BROADBENT. I think I would rather answer that for the record, if I could, Mr. Miller.

Mr. MILLER. All right.

[EDITOR'S NOTE.—In response to Chairman Miller's question, the Department subsequently supplied the following additional information:]

Our current estimate of capital costs attributed to irrigation are:

Remaining cost of supply works and irrigation facilities	$591,874,000
Sunk costs of supply works	213,370,000
Total	805,244,000

Mr. MILLER. Secretary Broadbent, as I understand it, the original authorized plan was for roughly $1,289,000,000, and the Commission plan is a $1,119,000,000. There have been some suggestions for additional features which I think the Department has made a suggestion of. Is that correct? Another $600 million roughly?

Mr. BROADBENT. If I could, let me explain how I understand it, Mr. Chairman.

Mr. MILLER. Sure.

Mr. BROADBENT. The original authorized plan was for something over a billion dollars. The Garrison Commission recommendation, not including any of the projects in the Canadian Drainage Basin, was for about a little over a billion dollars, but nothing is deauthorized from—or taken out of—the original plan so technically the new plan still has in place all of the features of the old plan plus the new Garrison Commission recommendation.

Mr. **Miller**. Is there a net cost of the new plan, assuming that the old features that were not recommended would not be constructed?

Mr. **Broadbent**. The Garrison Commission says that the cost would be something over a billion, $100 million.

Mr. **Miller**. That is if you implement the positive recommendations of the Garrison Commission.

Mr. **Broadbent**. Yes. Our cost studies indicate that it may be slightly higher than that, but we won't know until we do a full evaluation of the cost.

Mr. **Miller**. The irrigation portions of this project are currently governed by what, by contracts that have already been signed?

Mr. **Broadbent**. There has been about $213 million of sunk costs in the project so far. That was originally to irrigate some 250,000 acres of land.

Mr. **Miller**. All right.

Mr. **Broadbent**. Then we have been going ahead on what we would call the phase A or phase I of the Garrison Commission full 250,000 recommendation which was for something over 85,000 acres. We have awarded contracts which would have allowed us to irrigate some 85,000 acres of land all in the Missouri River Drainage Basin.

Mr. **Miller**. As recommended by the Commission?

Mr. **Broadbent**. That was before the Commission got into it.

Mr. **Miller**. OK.

Mr. **Broadbent**. Now the Commission, when they got into it, recommended an additional amount of acreage in the Missouri River drainage basin for irrigation. It went from 85,000 up to 131,000 of which 17,000 was recommended for Indian irrigation facilities.

Mr. **Miller**. All right.

Are there contracts signed for the delivery of any of this water yet?

Mr. **Broadbent**. Yes sir. There are contracts signed for the delivery for the 85,000-acre plan.

Mr. **Miller**. OK, and those contracts—the terms of those contracts in terms of repayment are what?

Mr. **Broadbent**. Ability to pay as prescribed by reclamation law.

Mr. **Miller**. Which amounts to what?

Mr. **Broadbent**. Something less than what the contract is, something substantially less than the contract cost. I could furnish it for the record. I am sure we have it someplace.

Mr. **Miller**. And the district may also be able to furnish it.

Mr. **Broadbent**. Yes.

[Editor's note.—In response to Chairman Miller's question, the Department subsequently supplied the following additional information:]

Phase I of North Dakota's plan for phase development of the Garrison Diversion Unit was for irrigation of 85,460 acres. Repayment contracts were existing for all except 20,935 acres in the New Rockford area. However, not all of the 85,460 acres were in the Missouri River drainage basin:

1. Lincoln Valley Area.—This area is physically located in the Sheyenne drainage basin, the return flows would have accrued to Lonetree Reservoir.

2. The New Rockford Area.—This area consists of 20,935 acres as defined in the Commission Report. The return flows would naturally accure to Robinson Coulee which is a tributary of the Sheyenne River. As a part of the Phase I development, it was proposed to reroute the return flows and storm runoff to the James River.

3. Warwick-McVille Area.—The authorized area contained 47,220 acres of which 13,100 acres drain naturally to the Devils Lake closed basin and the remainder to the Sheyenne River. The Phase I plan proposed development of 25,000 acres by modifying the natural and project drains to stay within the Devils Lake closed basin.

EXISTING REPAYMENT CONTRACTS

Irrigation districts	Acreage	Repayment obligation [4]
James River	13,350	$747,000
Lincoln Valley	6,515	277,000
Dickey-Sargent	[1] 45,980	2,185,000
Warwick-McVille	[2] 47,220	2,242,000
Total	[3] 113,065	5,451,000

[1] 26,320 acres (East Oakes) not in Missouri River drainage basin.

[2] Totally out of Missouri River drainage basin.

[3] 39,525 acres with repayment contracts in Missouri River drainage basin.

[4] In addition to the repayment obligation to be paid over 40 years, the districts would be responsible for a pro rata share of OM&R costs for the system and pay an annual water service charge of $0.20 per acre. The Garrison Diversion Conservancy District would pay an additional $0.30 per acre water service charge. The total per acre payment would be about $1.20.

Mr. Miller. Do you know over what period of time that repayment would be made?

Mr. Broadbent. Fifty years.

Mr. Miller. This is a 50-year repayment.

Mr. Broadbent. On completion of construction.

Mr. Miller. That is a familiar phrase.

Has there been any attempt to get an OMB review of the Commission recommendations?

Mr. Broadbent. Yes, sir, I am informed by our congressional liaison people that it would be possible to have a report on H.R. 1116 within 30 days to the committee.

Mr. Miller. OK. Obviously at some point that is going to be very important.

Mr. Broadbent. We will attempt to move it quicker than that if we can, Mr. Chairman.

[Editor's note.—At time of printing, the Department had not yet supplied the information requested by Chairman Miller. When received, that material will be placed in the committee files of today's hearing.]

Mr. Miller. Thank you.

Mr. Strang.

Mr. Strang. I have no questions, thank you.

Mr. Broadbent. I think maybe I left a wrong impression with some members of the committee, or at least it was felt by some people out in the audience that I might have left a wrong impression. I would like to clear that up.

First of all, we don't intend to not move ahead on the Garrison Commission recommendation. We do not look forward to any kind of a position that would put us in the position of not having a Garrison Commission bill by the time this Congress adjourns sine die. We recognize the consequences of that. We recognize what it will do and I want to again emphasize the fact that we want to work closely with the members of this committee and any other committee that is dealing with Garrison get a resolution of this issue through a compromise that we think has been facilitated by the Garrison Commission report.

Mr. MILLER. I appreciate that.

After reviewing either legislation that has been introduced or proposed legislation in the State legislature, obviously there are some people who are terribly upset with the recommendation on the Lonetree dam. Do you support that component of the Commission recommendation?

Mr. BROADBENT. We support the Garrison Commission's recommendation on Sykeston Canal.

Mr. MILLER. I appreciate that. Thank you very much.

Mr. BROADBENT. Thank you.

We would like to submit for the record part of the decision document that was a part of our basis for our decision on what we went ahead with, if I could.

Mr. MILLER. All right.

[EDITOR'S NOTE.—The above-mentioned document may be found in the appendix. See table of contents for page number.]

Mr. BROADBENT. Thank you very much, Mr. Chairman.

Mr. MILLER. In keeping with the request made by Congressman Strang, we will also have some questions for the Department to be made part of this record and obviously expect a continuing dialogue with you on how we resolve this.

Mr. BROADBENT. Thank you very much, Mr. Chairman.

Mr. MILLER. The next witness that the committee will hear from is Mr. Allen White Lightning, from the Standing Rock Sioux Tribal Council, Fort Yates, ND.

Welcome to the committee and, as with the other witnesses, if you have a formal statement, it will be included in the record and you proceed in the manner in which you are most comfortable.

[Prepared statement of Allen White Lightning may be found in the appendix.]

STATEMENT OF ALLEN WHITE LIGHTNING, STANDING ROCK SIOUX TRIBAL COUNCIL, FORT YATES, ND

Mr. WHITE LIGHTNING. Thank you, Mr. Chairman. I appreciate the time that you have allowed the Standing Rock Sioux Tribe——

Mr. MILLER. If you can talk close into the microphone, this is not the best sound system.

Mr. WHITE LIGHTNING. I understand that you have just assumed the chairmanship of the subcommittee and I would like to congratulate you also.

Mr. MILLER. Thank you.

Mr. WHITE LIGHTNING. Mr. Chairman, for the record, I would like to read the statement that we have prepared for the committee.

My name is Allen White Lightning; I am the chairman of the Health, Education and Welfare Committee of the Standing Rock Sioux Tribal Council and I am also a member of the Tribal Select Committee on Water.

The Standing Rock Reservation is located in the southcentral portion of North Dakota and in the northcentral portion of South Dakota. It encompasses all of Sioux County in North Dakota and all of Corson County in South Dakota. The reservation covers approximately 3,643 square miles or 2.3 million acres. The tribe has 90 miles of shoreline on the Missiouri River and maintains ownership of that particular shoreline under the Fort Laramie Treaty of 1868. Treaty rights under the 1868 Treaty provide that land cannot be taken without the consent of the people.

The Standing Rock Sioux Tribe originally opposed the Garrison diversion project because the States of North Dakota and South Dakota both used the loss of land within their States as justification to receive support for water development in those respective States.

Mr. Chairman, most of the land lost in North and South Dakota has been on Indian reservations. The Standing Rock Sioux Tribe sacrificed 55,994 acres of our richest irrigable bottomlands in the national interest. The Sioux Tribes of South Dakota together sacrificed more than 203,000 acres for development under the Pick-Sloan plan. This is more than any other people sacrificed in the entire United States.

Of course, the tribe is concerned with being the first tribe downstream from the Garrison diversion. The negative effects include the depletion of water by approximately 3 million acre-feet per year; deletion of deliverables to Standing Rock, such as low-rate pumping power authorized in 1982 to our irrigation project; reduced water flows and further reduction of water in any future phases of Garrison diversion, which will damage the overall development of the Standing Rock Reservation.

Since the construction of the Oahe Dam and Reservoir, to the detriment of the Standing Rock Sioux Tribe and its valuable rights to the use of water, there has been no greater emphasis upon the needs for development of water resources for the benefit of Standing Rock Sioux Tribe and its members than now exists.

The Standing Rock Sioux Tribe has initiated the development of a framework for the beneficial use, management, and control of Indian water resources. Clearly, the Standing Rock Sioux Tribe has paramount rights to the use of water. However, the exercise of those rights has historically been suppressed as evidenced by the minimal development of irrigation and other uses of water.

A continual fracturing of title to land has contributed substantially to this absence of development, but more recent governmental decisions such as water marketing and national water policy of the Federal Government is resulting in new and serious limitations to the actual use of water by the Standing Rock Sioux Tribe.

Development potentials include irrigation from the mainstem Missouri River, hydropower generation on the mainstem Missouri River, irrigation from the regulated and unregulated tributary streams, municipal and rural systems development and management of those systems.

The Department of the Interior has the Tribal Water Code under consideration and has had that document since the fall of 1984. The Department of the Interior also has been presented with a proposal for investigation of water resource development and utilization potential in the amount of $500,000. We understand there is no money in the BIA for this proposal.

It is the genuine belief of the Standing Rock Sioux Tribe that through the development of sound water resources policy by the tribe and implementation of projects under our planning, management, and control, the current Federal policy be overcome and Indian water rights can be put to use for the benefit of the Standing Rock Sioux Tribe.

Although there is much to be said about the Indian water requirements not being addressed by the Federal agencies involved in water development, I will address the specifics of the Garrison Diversion Unit Commission recommendations at this time.

Regarding the Environmental Impact Task Force, we recommend that at least one Indian representative of a federally recognized tribe who has understanding of the cultural values of people serve on this task force.

BIA or BOR as lead agency: The Bureau of Indian Affairs must assume its rightful role and responsibility regarding Indian tribes and their resources.

Regarding the Fort Yates Irrigation Area of 2,380 acres, the Standing Rock Sioux Tribe requests the study and formula used to address the proposed irrigation and what criteria governs the project. The Standing Rock Sioux Tribe reserves the right to utilize its own technical expertise in the development of this project and the financial management of the proposed funding.

The tribe further considers this project a small complement of major development, which is the 25,850 acres authorized in 1944. Finally, this 2,380 acres is in no way a settlement of the full extent of requirements of the Winters Doctrine water rights. All of the figures do not include the acreage taken by the Oahe Act.

With regard to the question of authorized projects for Indian tribes under the 1944 act, we address the following: While the Pick-Sloan Act does not distinguish between Federal and Indian water rights, the plan identified areas of proposed irrigation projects within seven Sioux Indian reservations, including Standing Rock. Electricity produced from Missouri hydropower components of the Pick-Sloan Plan was to be used to enhance the development of the irrigation. However, the hydropower benefits associated with those irrigation projects is also minimal while BOR markets most of the hydropower.

The Standing Rock Sioux Tribe urges the authorization of these projects under the Leavitt Act. The Standing Rock Sioux Tribe reserves the right to know more about the project as authorized under the Leavitt Act, its design and administration costs in addition to any economic feasibility criteria that may be applied.

The Standing Rock Sioux Tribe reserves the right to the following: One, legal review; two, engineering review; three, soil and land classification study; and four, to administer any and all parts of the contract by Public Law 93-638.

The municipal water needs are in excess of $1.8 million as documented by the Indian Health Service. There are eight communities on Standing Rock, five of which are on the South Dakota portion of the reservation. Four communities suffer severe water shortage, obsolete systems, and major water crisis.

You are urged to consider in H.R. 1116 all the needs of the Standing Rock Sioux Tribe as identified in the Garrison Diversion Unit Commission recommendation.

Mr. Chairman, here we were under the impression that Mr. Udall was the chairman of the subcommittee at the time when we prepared the presentation and this particular portion was addressed particularly to Mr. Udall. At the time, 1958, Mr. Udall, as I understand, had been on this particular committee that had authorized the Oahe Reservoir, and for the record to Mr. Udall, as a former member of that particular committee of Congress that reviewed Public Law 85-915, the Oahe Act, you will recall the opposition to this bill had been expressed to our general counsel by members of those respective committees that have been drastically affected.

However, you, as Members of Congress, were not privileged to receive direct testimony of the position lands condemned in the national interest. We urge this committee to fully consider our recommendations to amend H.R. 1116 and include within this bill our needs.

The Standing Rock Sioux Tribe supports water development. However, the tribe, under the Winters Doctrine, must be included in all plans which utilize or affect the waters of the Missouri River. The economic future of Standing Rock Sioux Tribe depends upon this involvement.

We thank you, Mr. Chairman, for taking the time to listen to our brief testimony and I would be available to respond to any questions that you would have, or we would also be available to submit for the record any questions that we would be unable to respond to.

Mr. MILLER. Thank you.

As I understand your testimony, your concern is that the specific recommendations of the Commission with respect to the Indian lands is not included in the legislation.

Mr. WHITE LIGHTNING. That is correct, Mr. Chairman. We have a great concern because the Standing Rock Sioux Tribe unfortunately lies in two States, North Dakota and South Dakota and the majority of the land that was sacrificed by Standing Rock was in the State of South Dakota. The majority of the people that were moved off of their lands was in the South Dakota portion.

I noticed the legislation and also the Garrison diversion did not include the South Dakota portion of Standing Rock and so it is very difficult for us to support H.R. 1116 as it is unless there was an amendment to include the entire affected reservation.

Mr. MILLER. The recommendation for the 2,300 irrigated acres on Standing Rock would require us to build a conveyance system on the reservation after you take the water out of the river?

Mr. WHITE LIGHTNING. Probably so, yes. My understanding is that the 2,380 are basically—we have researched all of the records that we have, Mr. Chairman, and we have no record identifying specifically that amount. We do have records going back to 1944 that authorized 25,000 acres. We have a study completed by the Bureau of Indian Affairs in 1977 that identifies 303,000 irrigable lands on the reservation. There is nothing specifically identifying the 2,380 acres.

Mr. MILLER. What is your understanding of how that figure was arrived at within the Commission?

Mr. WHITE LIGHTNING. We have no idea. We question that also. We wanted to find out specifically how that figure was arrived at.

Mr. MILLER. Is that based on classifications of irrigable lands?

Mr. WHITE LIGHTNING. My understanding is that the BOR and the Bureau of Indian Affairs both have done some studies in the past that they have——

Mr. MILLER. To classify those lands?

Mr. WHITE LIGHTNING. I imagine so, yes, sir.

Mr. MILLER. We will have to take a look at that.

The Commission also suggested a five-member Commission on water development and related Indian issues. I assume that you support that recommendation?

Mr. WHITE LIGHTNING. Yes, Mr. Chairman, we do support that. I had a brief discussion in the hallway a few minutes ago with Assistant Secretary Fritz of the Bureau of Indian Affairs. I had asked of him information as to when the five-member Commission would be coming onboard as the Commission had recommended no later than January 31 of 1985, and he has indicated to me that some time within the next 60 days, they will begin the implementation of a five-member Commission.

As a result, I made a note to myself here that the five-member Commission on hold so Standing Rock would recommend that H.R. 1116 incorporate all of the recommendations of the——

Mr. MILLER. That Commission would deal with more than the issues surrounding Standing Rock, correct?

Mr. WHITE LIGHTNING. Yes.

Mr. MILLER. It would go to the entire recommendation of the Commission report.

Mr. WHITE LIGHTNING. Right. It would completely address the Fort Berthold and Standing Rock and I am sure Fort Berthold is here and they would be able to respond to the questions addressing Fort Berthold.

Mr. MILLER. Thank you.

Mr. STRANG. I appreciate your testimony. I just wanted to ask you one question that I am not clear on.

On page 2 two of your statement, at the top of the page, you say "The negative effects include the depletion of water by approximately 3 million acre-feet per year." How did you get to that figure, as a matter of curiosity?

Mr. WHITE LIGHTNING. The information that my staff has received, basically, I believe, from BOR—they are situated in Bismarck—they have indicated somewhere between 2 to 3 million acre-feet was going to be diverted as is. This does not include the Lonetree and I am sure that the amount is far less than that.

Mr. STRANG. Thank you. We might ask your staff to provide us with the data they use to get that figure, and I yield back the balance of my time, Mr. Chairman.

Mr. MILLER. Thank you.

Mr. **White Lightning.** I will get my staff to provide the committee with all the information that would possibly be relative to our recommendations and our testimony.

[**Editor's note.**—Response to Mr. Strang's request may be found in the appendix, under cover of a letter from Charles W. Murphy, chairman, Standing Rock Sioux Tribe to Chairman Miller, dated March 4, 1985.]

Mr. **Miller.** Thank you very much.

Mr. **White Lightning.** Thank you.

Mr. **Miller.** We will again stay in touch with you as we proceed to work on the legislation, the Commission recommendations.

Mr. **White Lightning.** Thank you, Mr. Chairman.

Mr. **Miller.** The next witness the committee will hear from is Mr. Russ Dushinske, who is the chairman of the Garrison Diversion Conservancy District; and Mr. Murray Sagsveen, who is the special assistant attorney general for the Garrison Diversion Conservancy District.

Welcome to the committee and, again, your printed statements will be included in the record and you may proceed in the manner you are most comfortable with. The extent to which you can summarize would be appreciated as we can expect some votes on the floor in a while. Please go ahead.

[Prepared statements of Russell L. Dushinske and Murray G. Sagsveen may be found in the appendix.]

PANEL CONSISTING OF RUSS DUSHINSKE, CHAIRMAN, GARRISON DIVERSION CONSERVANCY DISTRICT AND MURRAY SAGSVEEN, SPECIAL ASSISTANT ATTORNEY GENERAL FOR THE GARRISON DIVERSION CONSERVANCY DISTRICT

Mr. **Dushinske.** Thank you, Mr. Chairman, and members of the committee. I only have a brief statement so I am going to read the whole thing, but it is your pleasure.

My name is Russ Dushinske, and I have had the privilege of living in North Dakota all my adult life and my hometown is Devils Lake. This statement is presented on behalf of the Garrison Diversion Conservancy District, for which I am presently serving as chairman of the board of directors.

The Garrison Diversion Conservancy District was created by the North Dakota Legislature in 1955 and covers 25 counties in central and eastern North Dakota designed to receive the multiple benefits of distributing plentiful Missouri River water for municipal, rural, agricultural, industrial, wildlife, and recreational uses.

It is the legal entity to contract with the Bureau of Reclamation for development and repayment. A master contract has been signed by the Bureau of Reclamation and the conservancy district for this purpose, as well as three-way contracts between the Bureau, the conservancy district and four irrigation districts, plus one municipal water-delivery contract. These districts are eager for delivery of the water promised 20 years ago and to enjoy its benefits.

In a policy statement adopted by the board of directors after release of the Garrison Diversion Unit Study Commission's recommendations to the Secretary of the Interior, it was recommended that: "The Secretary propose enabling legislation to Congress by February 15, 1985, or as soon as possible thereafter, to assure authority to implement any part of the Commission's plan which is determined to be beyond current authorization."

We are happy the legislative process is starting here today and urge this committee and the full Congress to give it early and favorable comment.

However, the Garrison Diversion Conservancy District Board and the State of North Dakota have some reservations about the Commission and Secretary's recommendations. As a result, the bill will be acceptable to us only if it has no adverse effects on the Garrison Diversion Unit authorization in the Flood Control Act of 1944 or the authorization of the 250,000 acre first phase in 1965, or does not replace them.

The Garrison Diversion Conservancy District also insists that there be no attempt to foreclose the construction of Lonetree Reservoir or the diversion of Missouri River water to the Souris and Red River Watersheds into Devils Lake and to satisfy the request for water by the State of South Dakota.

The Garrison Diversion Conservancy District and the State have agreed that utilization of Lonetree is dependent upon successful consultations with Canada. The district requests that these negotiations be resumed as soon as possible.

The board, in its statement, urges the Secretary to immediately begin the process to make a formal determination concerning the need for Lonetree prior to any construction on the proposed alternative, the Sykeston Canal.

We are concerned that the project meet not only the "contemporary water needs of North Dakota," which apparently was the Commission's goal, but also all future water needs. The Commission's proposal should not be considered a complete answer.

The Garrison Diversion Unit was developed through nearly 40 years of close cooperation between the State, the water commission, the conservancy district, the Bureau of Reclamation plus other Federal agencies. It will meet the desired objectives and continue to have a favorable benefit/cost ratio, despite rising costs due to inflation.

It is also environmentally sound, meeting all the tests of the Environmental Protection Agency and the courts.

Through the decades of planning, certain modifications have been made, modernizing and improving project features. That includes conversion to sprinkler-type irrigation, replacing gravity flow thus virtually eliminating any damage or damaging return flow problems.

A State/Federal Mitigation and Enhancement Lands Commission successfully completed a habitat evaluation plan using advanced methodology to aid in mitigating and enhancing wetlands and projects. Our board recommends continuance of that committee.

In response to accelerated demands for quality, rural, domestic and municipal water supplies, the State has outlined an improved delivery plan which is less costly than the Commission's recommended plan. This has our endorsement.

Through the years, Garrison has overcome many problems, successfully met every challenge; won every legal battle and has emerged the strong project. The State and the Conservancy District have made considerable financial investments in the diversion project and lived up to every obligation in their contract with the Federal Government.

Every year's delay costs the State $153 million in promised returns. Delays also mean the Federal investment is not generating returns.

We look forward to continued team efforts with the Bureau and other State and Federal agencies and welcome any cooperation from the environmental groups to accelerate progress of this much-needed project.

Thank you very much.

Mr. MILLER. Thank you.

Do you have a statement?

Mr. SAGSVEEN. Mr. Chairman, I am Murray Sagsveen, special assistant attorney general for the State of North Dakota and the Garrison Diversion Conservancy District. I am a State representative to the diplomatic consultations that have been taking place since 1981.

I have a few comments concerning the diplomatic consultations from the State's perspective.

Canada and the United States referred the Garrison Diversion Unit to the International Joint Commission in 1975. The Commission completed its report in 1977 and recommended that those portions of the Garrison Diversion Unit which could affect waters flowing into Canada not be built at this time.

North Dakota and the Garrison Diversion Conservancy District responded to the IJC report with a plan to implement proposed modifications and to continue construction of those features which could not affect waters flowing into Canada. This plan, frequently referred to as the "phased development concept," was approved by the Garrison Diversion Conservancy District, the North Dakota Legislative Assembly, the Governors of North Dakota and was presented to the Governments of the United States and Canada in 1981.

The plan has been analyzed and been the subject of an Environmental Impact Statement. There have been diplomatic consultations concerning this plan, and in 1984, in April, the consultative group agreed that the mitigation and enhancement plan would be conceptually acceptable; that the design of Lonetree Dam and related works is structurally acceptable and adequate to prevent biota transfer and the outlet plug for municipal and industrial water in Lonetree Dam is acceptable and that many of the Canadian concerns on these aspects have been essentially resolved.

There are two issues that remain to be addressed. That relates to fishing in Lonetree Reservoir and the fish screen in the McClusky Canal, very important because of the cost aspect involved.

These issues had been under diplomatic consultation and were diplomatic consultations were ongoing at the time the Commission was implemented.

The Garrison Diversion Unit Commission has recommended that consultations continue on several issues. They include the consultations on Lonetree Reservoir, diplomatic consultations on municipal and industrial releases to the Sheyenne River and other M&I proposals and also the outlet of Devils Lake.

The State has not been informed about further diplomatic consultations between Canada and the United States. We, however, assume that the two governments will soon resume consultation to address all of the issues raised in the Garrison Diversion Unit Commission report and the State urges that this take place at the earliest opportunity.

The full statement has been submitted for the record.

Mr. MILLER. Thank you.

So it is your position that you agree with the Commission recommendations with the following caveats. One, that you don't think that they are extensive enough in terms of the area served. Two, you still believe that there is a chance to resolve the detrimental effects of Lonetree with the Canadian Government. You don't want to spend any money on Sykeston until you have had a chance to prove that.

Mr. SAGSVEEN. We have urged that the consultations concerning Lonetree Reservoir take place at an early opportunity before the investment in the Sykeston Canal.

Mr. MILLER. Where are the consultations to date?

Mr. SAGSVEEN. The consultations to date have addressed Lonetree Reservoir and have addressed—and have resolved many of the issues—many, but not all of the issues related to Lonetree Reservoir.

The two remaining issues have to do with fishing in Lonetree Reservoir and whether a fish screen should be constructed upstream of Lonetree Reservoir. Those are the two outstanding issues.

Consultations have been taking place since 1981 and there has been marked success in those consultations.

Mr. MILLER. But it is fair to say that you put Lonetree back into the package, you don't have a compromise anymore.

Mr. SAGSVEEN. No. We agree with the Commission report on Lonetree Reservoir. The Commission report recommended that the Sykeston Canal—or that Lonetree be deferred until three conditions are met: First, that there be a determination of need by the Secretary; second, that there be consultations with Canada; and third, that money be allocated.

What we are recommending is that those three issues be addressed before Sykeston Canal is constructed, not after.

Mr. MILLER. Thank you.

I am from up in the northern part of California and I hope you have better luck with your fish screens than we have had with ours because most of our good bass are now in Los Angeles, in spite of the fish screens, but I hope you come up with a good one.

Mr. SAGSVEEN. Mr. Chairman, we are recommending that these consultations and determinations proceed before the investment in Sykeston, not after.

Mr. MILLER. I understand. Thank you very much for your testimony.

The next witness will be Ms. Alyce Spotted Bear, from the Three Affiliated Tribes of Fort Berthold—excuse me, Ms. Tillie Walker, also.

[Prepared statement of Alyce Spotted Bear may be found in the appendix.]

STATEMENT OF ALYCE SPOTTED BEAR, THREE AFFILIATED TRIBES OF FORT BERTHOLD, ACCOMPANIED BY RAYMOND CROSS, LEGAL COUNSEL AND MEMBER

Ms. SPOTTED BEAR. Thank you, Mr. Chairman. I would like to—Tillie Walker is here with us, but she has deferred to our legal counsel, Raymond Cross, who is also a member of the Three Affiliated Tribes——

Mr. MILLER. Excuse me, your name is, again? Is it Cross?

Mr. CROSS. Raymond Cross, C-r-o-s-s.

Mr. MILLER. Thank you.

Ms. SPOTTED BEAR. Mr. Chairman, would it be OK if I read my statement?

Mr. MILLER. Sure, however you are most comfortable there.

Ms. SPOTTED BEAR. Thank you.

My name is Alyce Spotted Bear. I am the chairman of the Three Affiliated Tribes of the Fort Berthold Reservation, ND, which are the Mandan, Hidatsa, and Arikara Tribes.

We support the Garrison Diversion Project as modified by the Garrison Diversion Unit Commission in its report of December 20, 1984, and we support H.R. 1116, which would approve the Commission's modifications. We do have an amendment which I will discuss in a minute.

The parts to the project that we are particularly in support of are: (a) the Lucky Mound and Upper Six Mile Creek irrigation units, and (b) the five-member factfinding Commission that the Garrison Diversion Unit Commission recommended be established to report on the disruption to Indian reservations caused by the Pick-Sloan Missouri Basin Program of dams and reservoirs. Both of these are very important to us.

When the Garrison Dam was built in 1950, it flooded out practically all of our reservation homes and villages where we had lived since before the non-Indian came. It ruined the well-balanced economy we had. Every acre of our good bottomland on the reservation was flooded. Just as significantly, the social and cultural life of the Three Affiliated Tribes were completely disrupted.

Ninety percent of the tribal population, some 357 families, were relocated from the fertile bottomland to the much less productive benchlands of the reservation. Before the dam, our people had good water, garden crops, timber, firewood, and even coal available whenever they wanted it. I know this because our family used to go and dig coal right out of the hillside for fuel.

Our cattle could spend the winter in the Missouri Breaks without any more shelter than the Breaks. Also, the strong closely linked tribal communities along the bottomlands provided help for all tribal members, resulting in a negligible social welfare rate on the reservation.

At that time, our social welfare rate was approximately 6 percent. In these days, it is astronomical. We have never recovered from the Garrison Dam. Today our unemployment rate is over 70 percent. Sometimes in the winter months, this ranges as high as 86 percent.

In addition to greatly reducing our means of self-support, the reservoir ruined our transportation system. There is only one bridge on the reservation which crosses the lake on the far north end of the reservation. There are no other bridges for 100 miles downstream.

To give you the worst example, take someone living where Route 8 used to cross the river. If he wants to visit his cousin on the other side of the lake, he now has to drive 145 miles one way to do it, no matter which bridge he uses. Before the dam, the two cousins may have been separated by the river, but only 2 or 3 miles apart by car because of the old Route 8 bridge. This has happened to many close relatives who now live far apart.

Our tribal headquarters used to be centrally located; it was flooded out and now it is located near the bridge at the far north end of the reservation. Some council members and people with business before the Council now have to make very long round trips to attend meetings which slows everything down.

Our schools and hospitals were not adequately replaced. Before the dam, we had a hospital centrally located. After the dam, the hospital was flooded and not replaced. We have to go to the nearest health care centers off of the reservation.

For 35 years, we have been trying to get along under the difficulties caused by the Garrison Dam. Things are improving each year, but we need a lot more help from the Government than we have gotten to overcome these difficulties. For example, we need replacement farmland, a replacement hospital, some replacement roads, at least one replacement bridge, and above all, a program of economic development to reduce unemployment.

Some people say we have been paid for what we lost. It is true that we were paid $12 million in 1950, but that was only for the market value of the land and for relocation. What we still need is restoration of our economy and public facilities so that we can be self-supporting.

We feel sorry for the white people who lost their farms, too, but they were not a culturally distinct and close-knit community like we were and they did not have treaty rights as we did and there is no trust relationship between them and the United States, as there is with us.

In 1851, the Fort Laramie Treaty recognized that we owned a vast territory in North and South Dakota, Montana, and Wyoming, over 12 million acres. In that treaty, the United States said: "The United States bind themselve to protect the aforesaid Indian nations against the commission of all degradations by the people of the United States."

The 1851 boundaries were changed by the United States from time to time until 1891 when Congress approved an agreement with us setting the final boundaries of our reservation, saying that these lands "shall be held by the said tribes of Indians as a reservation." Our interpretation of the 1851 Treaty and the 1891 Agreement is that our land—or at least what we still had left in 1891—would be protected against any further taking, and yet, all of our best land was taken for the Garrison Dam. In fact, we were the main contributors of land for the reservoir.

Known as Lake Sakakawea, the reservoir did not have to be located where it was. Even the U.S. Bureau of Reclamation favored a different location that would not have flooded out all our homes and villages. We have never had a chance to tell our story about what happened in 1949 and in 1950. The $12 million we were given in 1949 was conditioned on the act being approved by the tribal people and the act said that the people's approval would be a waiver of all claims in connection with the Garrison Dam.

The people, of course, voted to take the $12 million. They had no real choice because the dam had been closed and the water was already rising, so it really didn't make any difference. That cut off our right to ever go to court so that we never had a chance to tell our story.

We want Congress to hear our story and that is why we are so strongly in favor of the five-member study commission recommended by the Garrison Diversion Unit Commission. If our story is heard, Congress will at least know what we gave up to make the Garrison Dam possible and what steps still need to be taken to help us regain our economic footing.

We also support the two irrigation projects proposed for us by the Garrison Diversion Unit Commission. We lost all of our first-class irrigable land when the Garrison Dam was built. The remaining land on the reservation is upland prairie and is expensive to irrigate because the land is fairly high off the lake and because of the need for drainage facilities.

However, our hydrologist believes that the two areas recommended in the GDU Commission report can be irrigation-farmed at a profit. We certainly want to do this to generate jobs for farm work and get the money circulating around the reservation.

We do have an amendment that we urge the committee to adopt. H.R. 1116 expressly approves the two irrigation projects recommended for Fort Berthold by the GDU Commission. That is good, and as I just said, we support that.

The GDU Commission made another recommendation to setup the five-member commission. As I said before, we strongly support that, too. The five-member commission is as important to us as the two irrigation projects and we would like H.R. 1116 to expressly approve it, too.

We realize that the way H.R. 1116 is written, it may be that the five-member commission is impliedly authorized already, but we would rather this be as specific as the two irrigation projects.

Attached to my testimony are the proposed amendments to H.R. 1116. Item 1 proposes a couple of technical amendments and Item 2 proposes a new section 3(a) of the bill, which would give specific authorization for the five-member commission.

I appreciate the opportunity to testify on behalf of the Three Affiliated Tribes and thank you. I will answer any questions that you might have.

Mr. **Miller**. Thank you.

You are in concurrence, then, with the lands that have been suggested in the Commission report for irrigation? Are those the same lands that your hydrologists have determined are suitable for irrigation?

Ms. Spotted Bear. Yes.

Mr. Miller. And the same number of acres? Would you irrigate more or——

Mr. Cross. Mr. Chairman.

Mr. Miller. Yes.

Mr. Cross. They identified 15,200 acres and two irrigation areas on Fort Berthold, Lucky Mound, and Upper Six Mile Creek. We did not have the funds at that time to extend our feasibility studies beyond those two areas, however, based on certain land classification principals, we found about 100,000 additional acreage above and beyond the 15,200 acres recommended for development in the Commission's final report. So we would like to point out that there are additional irrigable sites on the reservations, but we certainly do support the recommendations for the two projects.

Mr. Miller. Is there any limitation on the water available to the reservation for the purpose—for your use on the reservation?

Mr. Cross. The studies that we have made so far, Chairman Miller, is that the best way to irrigate those two areas would be from mainstem diversion. That would occasion a diversion structure, a pumping system and distribution system to take the water, lift it about 200 to 350 feet from the mainstem reservoir and distribute it to the proposed farm sites.

Mr. Miller. Is there any legal limitation on the amount of water that you can take from the reservoir?

Mr. Cross. We believe that there is no legal limitation on the amount of water that we may take from the reservoir to develop these sites.

Mr. Miller. What do other people believe?

Mr. Cross. I have not heard any challenge, either in the Commission nor in testimony today that would indicate that there is a limitation on the development of the water rights with the Indian tribes.

Mr. Miller. Do you know if that is the case for Standing Rock in terms of any limitation on the amount of water that they can take?

Mr. Cross. I do not believe I can speak on behalf of Standing Rock, but the Three Affiliated Tribes stand behind the principals of the water rights, which has been supported by this Congress, by the courts, since its termination and I suspect that that water right remains available to the Three Affiliated Tribes and to Standing Rock.

Mr. Miller. OK, I will make the assumption for the time being, then, that the 15,000 acre recommendation with respect to this reservation and the 2,300 acres on Standing Rock are not based upon any limitation on the amount of water that those reservations would be entitled to.

Mr. Cross. Based on our discussion——

Mr. Miller. If some later witness wants to clarify that, that is fine, but——

Mr. Cross. Based on our discussions with Secretary Broadbent—and he certainly can speak for himself—we understand that it is based on no limitation, no waiver of rights on behalf of those tribes.

We do want to emphasize, Mr. Chairman, that we would like to see the Secretary of the Interior move forward in the appointment and fair funding of the five-member Indian commission as directed by the GDUC.

Mr. **Miller**. It will be the intent of the Chair of this committee to bring that to the attention of the Secretary to see that that effort could be made.

Mr. **Cross**. We thank you, Mr. Chairman.

Mr. **Miller**. Thank you very much for your testimony.

Next we will hear from Mr. Nat Reed, from the National Audubon Society; and Dr. Glenn Paulson, from the National Audubon Society.

Welcome to the committee, and again, you proceed in the manner in which you are most comfortable. Your written statements will be put in the record.

[Prepared statement of Nathaniel P. Reed may be found in the appendix.]

STATEMENT OF NATHANIEL P. REED, NATIONAL AUDUBON SOCIETY, ACCOMPANIED BY GLENN PAULSON, SENIOR VICE PRESIDENT FOR SCIENCE AND SANCTUARIES

Mr. **Reed**. Thank you, Mr. Chairman.

My name is Nathaniel Reed; I am the chairman of the executive committee of the board of directors, National Audubon Society and I am here representing the board and the membership throughout the country.

From May 1971 through January 1977, I served as Assistant Secretary of the Interior for Fish and Wildlife and National Parks. During my tenure at the Department, I first became involved in the Garrison controversy. Presently I serve on the South Florida Water Management District of the State of Florida and am intimately familiar with the problems associated with bringing and maintaining water for a very large district.

On behalf of Audubon, I appeared before the Garrison Diversion Unit Commission at each of the three public hearings in North Dakota and presented our views, positions, and recommendations.

Mr. Chairman, it is a great pleasure to be back in this room where I testified close to 100 times in my nearly 6 years in office under Chairman Aspinall and my great friend, James Haley, of Florida. It is a very meaning experience to be back in this room and I congratulate you on assumption of your chairmanship of the subcommittee.

Mr. **Miller**. Thank you.

Mr. **Reed**. Appearing with me is Dr. Glenn Paulson, Senior Vice President for Science and Sanctuaries. We are here today to urge this committee and the entire Congress to act promptly on legislation implementing the conclusions and recommendations of the Garrison Diversion Unit Commission.

Secretary Clark was extremely supportive of the Commission throughout his life. He appointed high-quality individuals to a difficult assignment to be performed in an agonizingly short period of time, and before leaving office, he pointed to the work of the Commission with particular pride. His support of the effort to find alternatives to the Garrison is deeply appreciated.

Chairman Treen and the others who served on the Commission, as well as its staff, are due enormous credit. The assignment was accepted by each with the utmost seriousness and the absolute commitment to resolution of this difficult conflict.

The Commission's plan is a compromise. It doesn't have everything we want, nor does it have everything North Dakota and the project supporters want. It requires that all interested parties accept change, but as we stated during the Commission process, the changes and modifications recommended by the Commission should be viewed as a genuine opportunity to provide greater benefits to more North Dakotans than under the authorized plan, while recognizing natural resource values.

The former Senator from Oklahoma, Henry Bellmon, served on the Garrison Commission and at the final meeting, he commented on the actions being taken by the panel, stating:

> Let me say that I am convinced the Commission has already performed an important service to the State of North Dakota, as well as to the country, in the fact that the principal thrust to the Garrison Project, regardless of what happens here, will probably change from an emphasis on irrigation to an emphasis on M&I water.
>
> The original project would have served a fairly small number of irrigators in the State by spending thousands of dollars per acre and 1.6 million acres per farm to bring irrigation water clearly to a small number. The plan before us will bring far more M&I water to far more North Dakotan citizens and in that way, enhance the future development of the State for a large percentage of this population, rather than only a few.

Several Commissioners noted after the Commission adjourned that the report needs to be fine tuned and have its loose ends fixed. Consistent with the findings of the Commission, we are here today to support legislation that will fully ratify the work of the Commission and make necessary adjustments to its plan.

If this proposal was put on the table today as a new water development project, we would outright oppose it. The costs are too great and the environmental impacts are too severe. The Commission plan, it must be remembered, is a compromise and we support that compromise. The ratification by the Congress will bring to an end the bitter dispute that has existed for more than a decade.

The National Audubon Society is prepared to support the modified plan and work to support it if North Dakota does the same.

The Commission was created by Congress and given very unusual and extraordinary authority. The Commission was endowed with the power to recommend and those recommendations were intended to be self-executing. In other words, the Secretary of the Interior was required to implement those recommendations.

The National Audubon Society participated in this process. We have made significant and fundamental changes in our position. Throughout this process, we have repeatedly modified long-held positions and did so in an effort to bring about realistic, meaningful and environmentally sensitive water development in North Dakota by finding fair compromises to a series of issues that existed over the years.

Congressman Dorgan has introduced H.R. 1116, legislation drafted by the Department of the Interior and submitted to the Congress on February 5. We assume this bill will be the legislative vehicle for marking up a bill at the appropriate time. Prior to the hearing, we understand that Mr. Dorgan may seek to modify or even reintroduce the bill for jurisdictional reasons. Audubon supports legislation to implement the Commission's plan and we believe that the legislation pending before the committee should be amended to accurately and comprehensively reflect the decisions of the Garrison Diversion Unit Commission.

Here are some of our major concerns with the bill: The bill merely adds several new sections to the existing authorization. In effect, it grafts the new provisions to the 1965 authorizing act. It adds new features recommended by the Commission, but it does not eliminate features of the old project which the Commission wanted deleted;

The Commission's report is not referenced or incorporated into law as is frequently or almost always done with Bureau projects;

The legislation should direct the Bureau to implement the Commission's recommendations;

The legislation should authorize the Sykeston Canal as a substitute for the Lonetree Reservoir; and

The legislation should modify the existing authorization to limit construction to the Commission's recommendations. The failure to impose a limitation could result in the construction of a 320,000 acre, $1.8 billion project.

The bill as drafted fails, in our estimation, to followthrough, ratify, or otherwise mandate the implementation of the Commission's conclusions and recommendations. The first step in implementing the Commission's plan is to spell out in law exactly how the Bureau can proceed with Garrison. All parties deserve to have all the elements of the modified plan detailed so there is no misunderstanding, now or in the future.

Failure to be absolutely clear on what can and cannot be built will only perpetuate the controversy and that will be a disservice to North Dakota, the Congress and the rest of us who care about this issue.

We believe the bill is conceptually inadequate, that its approach is to give the Bureau of Reclamation absolute flexibility and total discretion to take the old authorization and the new Commission plan and determine which portions of each it wants to build.

Under the Department's bill, it could choose to build only the modified Garrison—that is, the Commission's plan, the original plan or some combination of the both. We believe the Commission's plan for modifying Garrison is clear and straightforward. Apparently the Bureau does not.

As I shall illustrate in a moment—and for that reason, it is imperative that the implementing legislation be very precise in telling the Bureau just what it can and cannot do with regard to the Garrison project.

Let me give you an example to illustrate why the directions to the Bureau must be clear and why broad discretionary authority in the bill must be limited.

In a recent meeting with Bureau officials, Audubon's representatives were advised that Garrison was now a 320,000 acre project because, in their view, the Commission failed to affirmatively deauthorize any features or acreage of the old project.

We do not agree. Furthermore, the Bureau's Garrison project data sheet for fiscal year 1986, which was submitted to the Congress just 2 weeks after Secretary Clark approved the Commission's plan, merges the plans. The schedule of construction merges the old project and the new in coming up with a $1.8 billion project.

Mr. Chairman, the Bureau's interpretation of their authority and their boldness in presenting a $1.8 billion project to Congress is truly staggering. Let me turn for a moment to what the Commission has said. According to the Commission, its plan will "develop less land for irrigation, 130,940 acres, compared with the 250,000 acres under the 1965 plan."

The cost of the Commission's recommended plan, as noted in the final report, is $1.1 billion; the Commission further specifies the construction of certain features and not of others. The Commission did not recommend they merge 320,000 acre, $1.8 billion plan, and to retain such a plan in the law is fundamentally inconsistent with the final action of that panel.

We urge this committee and the Congress to be very specific and carefully spell out in detail the modifications. It is absolutely critical, in dealing with an issue as sensitive and difficult as this one has been, to provide a detailed blueprint of actions and decisions so that all parties fully understand what to expect.

Providing municipal and industrial water has always been part of Garrison. In response to the declaration of need by representatives of the State and the formal State position before the Commission, M&I was greatly expanded. The Commission recommended the construction of 20 different municipal water supply systems throughout the State. North Dakota has bad drinking water throughout the State. The water fails both State and Federal drinking water standards. According to the State Health Department witness at the Commission's hearing in Bismarck, 82 percent of the city and rural or regional water supply system serving about 155,000 people currently are at or exceed those Federal primary and secondary standards. Approximately one-half of these systems are outside of the Garrison Conservancy District.

Attached to his testimony is a listing of almost 200 cities and towns, 90 of which are located outside the Conservancy District boundaries. That testimony further revealed that 187 towns exceeded the standard for total dissolved solids; 24 exceeded fluorides, 12 exceeded selenium, 124 exceeded manganese, 4 exceeded arsenic; 100 exceeded sulfate, among others.

North Dakota clearly spelled out a need and the Commission approved an impressive system to provide high-quality drinking water to 375,000 people in 130 towns located in all four corners of the State. This change in Garrison truly puts Missouri River water to work for the people of North Dakota.

We do recognize that concerns have been raised about financing the M&I system, and we have advocated exploring different means of financing. We will consider any reasonable financing package as long as it is generally consistent with the Commission plan.

The Commission spent more time discussing, reviewing and debating Lonetree Reservoir and its functional replacement, the Sykeston Canal, than perhaps any other issue. The Commission firmly voted against proceeding with Lonetree. We agree with the decision and praise the Commission for making it. It was a sound resource decision that permits development to occur, but without the destruction of the unique Lonetree Valley and the inundation of the Sheyenne National Wildlife Refuge.

Lonetree was a large regulating reservoir located in the central part of the State which virtually straddled the Drainage Divide Basin between the Missouri River Drainage Basin and the Hudson Bay Drainage, which drains into Canadian waters. The major purpose of this reservoir was to provide irrigation water into the Canadian Drainage Basin.

The Commission recommended the deletion of four major irrigation areas in the Hudson Bay Drainage. Therefore, the need for the reservoir was largely eliminated. Conservationists and Canadians both opposed the Lonetree Reservoir. Located in the long winding Lonetree Valley is the Sheyenne National Wildlife Refuge which would have been completely inundated by the construction of the controversial reservoir.

The Canadian Federal Government and the Manitoban Provincial Government vigorously opposed the interbasin transfer of water—the irrigation into the Hudson Bay Drainage—because it would result in enormous and irreversible damage to Canadian fisheries.

Let me emphasis that the rejection of Lonetree by the Commission is the key feature of the compromise.

The Commission's technical staff concluded that the Sykeston Canal will more than adequately serve as a means of bringing water from the McClusky Canal east to the New Rockford Canal and ultimately to the James River Basin.

However, rather than getting Sykeston built and operational, it troubles us that the Garrison Diversion Conservancy District has launched an effort to have Lonetree reinstated. With the Commission's report only 14 days old, the Garrison Diversion Conservancy District has formally asked the Secretary of the Interior to make a formal determination as to the need of Lonetree now, and then several days later, formally asked the Department of State and the Department of the Interior to start negotiations with Canada to build Lonetree.

Obviously, the Conservancy District wants to preempt any work on the Sykeston Canal, thereby undercutting the Commission plan.

Work should proceed on Sykeston and an evaluation of Lonetree, if it is to occur, should be made after Sykeston is in place and the Commission's plan has had an opportunity to operate it. To preempt the Commission plan is to reject it. Make it operational. Make it work.

Mr. Chairman, again let me emphasize that critical to our support this compromise is the deletion of Lonetree. Absent deletion, support for this compromise simply would not exist.

Given the importance and the sensitivity of the Sykeston Canal, we would recommend that the committee direct the Bureau to have the work on Sykeston independently reviewed. Lonetree Valley, as recommended by the Commission, will be managed as a wildlife area pursuant to the Fish and Wildlife Coordination Act. We support that decision.

According to the Commission's final report, it recommends that "Kraft Slough be recognized as a unique area with wildlife resource values that transcend all other potential uses." It goes on to state that no project activity should be undertaken at that site and that the Secretary acquire the property to protect it in perpetuity.

The Commission also recommended that Kraft Slough be managed by an appropriate Federal or State agency. We would recommend that it be placed in the National Wildlife Refuge System.

There are upland areas and adjoining wetlands which provide habitat, valuable habitat, and support for Kraft Slough and its waterfowl and wildlife. We urge that sufficient lands be acquired to protect the vitality and integrity of this valuable wetlands resource.

Most of the irrigation proposed in the Commission's plan is located in the James River Basin. Since the Commission concluded its work in December, we have asked both the Bureau of Reclamation in Bismarck and the Fish and Wildlife Service for an assessment of the impacts in the James River and its basin for the final Commission plan. To date, that assessment has been unavailable.

We were advised by the Commission staff that the Commission plan, as adopted, could be handled by the existing river channel with a minimum of channelization or downstream flooding.

We are deeply concerned about two national wildlife refuges located on the James River. Arrowwood National Wildlife Refuge is located just north of the Jamestown Dam and Reservoir and Sand Lake National Wildlife Refuge is located in South Dakota, just below the North Dakota border.

Sand Lake is especially important as a staging area for waterfowl in the migratory flyway. The Commission recommended that bypass channels, if required, be constructed to protect those important refuges.

We are anxious to have the Bureau of Reclamation/Fish and Wildlife Service joint evaluation and computer model made available as soon as possible so that the impacts will be fully understood.

This is a valuable river in the heart of the migratory flyway path. Actions should not be taken by the Bureau making irreversible commitments along the James River until a revised NEPA statement is concluded and the groundwater recharge evaluation has been completed.

The Bureau should be directed to manage the river, minimizing the impacts on it and the people who live adjacent to it.

The Bureau of Reclamation is required by law to fully mitigate the impacts of its projects. The history of Garrison is replete with controversy over mitigation. This has led in part to the extreme strained relationship between North Dakota and the Fish and Wildlife Service.

With the deletion of areas such as Lonetree, Kraft Slough and others, the Commission followed the principle of "avoidance in first instance." And, the formula adopted by the Commission in establishing mitigation is acre-for-acre over HEP which is clearly preferred.

We remain concerned that the Commission plan may have understated some of the project impacts and, therefore, the Commission assumed mitigation obligations are understated. We therefore recommend that the Fish and Wildlife Service be directed to prepare a revised mitigation plan based on a full evaluation of the impacts of the modified plan.

We would hope, with the compromise plan approved, that North Dakota will reverse its policies regarding the Fish and Wildlife Service and its programs in this State. It is patently unconstitutional to prevent a farmer from willingly selling his land to the Federal Government. It is time to move forward with the Service programs in North Dakota.

The Commission's Final Report contains several errors related to significant issues which should be clarified during the committee's procedures. In my written testimony, there are five errors which we consider worthy of close scrutiny.

In conclusion, the National Audubon Society supports the Commission's plan. It is a compromise and our support and that of others in the conservation community is dependent, among other things, on the elimination of Lonetree and the substitution of Sykeston Canal. As a stand-alone project, Audubon would not otherwise support it.

As this committee reviews the Commission plan and prepares legislation to ratify and implement the plan, we strongly urge that for the benefit of all interested parties, the committee be as specific as possible in defining the modified Garrison.

We urge this committee to provide as much clarity and direction as possible and to reject attempts by some to deviate from the Commission's approved plan. The Commission was directed by Congress to consider the contemporary water development needs of North Dakota. It did, and then proceeded to significanly change the authorized diversion project to meet current water needs.

While irrigation is substantially reduced, M&I water service is greatly expanded in response to the detailed record created by the Commission during its deliberations. M&I is by far and away the contemporary water need for North Dakota. While Garrison has been changed, it has been changed to provide Missouri River water, clean drinking water, to almost two out of three citizens in the entire State. No State can match North Dakota with such a progressive program.

Garrison Diversion, as originally conceived four decades ago, was intended to give preference to water development functions which make the greatest contribution to the well-being of the people and to the areas of greatest need. With the enactment of legislation implementing the Commission plan, the longstanding historical commitment to the State of North Dakota by the Federal Government for a water development project is met, if not well met.

We are prepared to work with North Dakota and all other interested parties to honor that commitment, consistent with resource sensitivity.

Thank you, Mr. Chairman, for the opportunity to come before you today.

Mr. Miller. Thank you very much, Mr. Reed, for your testimony. I also want to thank the Audubon Society for their involvement in this issue. It is clear—I think from the legislative predicament that came about in both the Senate and the House—that had you chosen to stand on the sidelines and simply oppose any resolution of this issue, we wouldn't be here today. This project would have gone by the wayside and we would have been doing something else with this time. I think that you have been a constructive element in the entire debate.

You seem to be saying the same thing that Congressman Conte suggested. You have very serious concerns about the need for this legislation to be explicit. Both in what it does, and what it does not authorize along the lines of the Commission recommendation.

Mr. **Reed**. Further reinforced, Mr. Chairman—by our meetings with the Bureau in North Dakota—we were absolutely astonished by what they read into what they thought the Commission gave them, empowered them to do.

We felt like we had gone back to start and we make that appeal to you today; that this simply cannot go on. A clear direction from the committee, the Congress to the Bureau of Reclamation at all levels must be undertaken as priority No. 1. There are many cooks stirring this broth.

Mr. **Miller**. I think that would certainly accurately reflect my concern, and without speaking for him, the concerns that Congressman Conte expressed. Our concern is that we not get ourselves into a fix where we come back and 1 day we are holding a hearing on those portions of the Commission report that have gone forward.

Mr. **Reed**. That would be just a disaster, Mr. Chairman.

Mr. **Miller**. I am new to the chairmanship of this committee, but I am not new to irrigation projects——

Mr. **Reed**. Exactly.

Mr. **Miller** [continuing]. If there are creative artists in the world, it is irrigation districts. We have several projects in California that have features or portions that were never authorized but nevertheless exist and are receiving services.

I don't think much more needs to be said. The committee is going to comb the Commission report and make sure that it is properly fenced with legislative language so that the intent, both of the Congress in setting up the Commission and of the members of that Commission who reached this agreement, will be carried out.

You have stated it, but let me just ask you in a question form: This really substantial change in purpose of this project from irrigation to M&I—you don't see that as an improper transformation?

Mr. **Reed**. As I said in my testimony, to think that it handles—it serves this many people in North Dakota, I think is the fundamental way to solve the problem of the commitment to the people of North Dakota. To think that it was only going to take care of roughly 840 farms at $1.6 million worth of subsidy for each as a commitment to North Dakota was absurd. This takes care of the greatest number of people at one of the most astonishing needs that I have ever heard of any State in the Union requiring, which is good, safe drinking water which to grow on and prosper by.

Mr. **Miller**. Thank you. George, do you have a question? Minority counsel has a question.

Mr. **Van Cleve**. Just for the record, I am George Van Cleve and—I represent the minority—serve as the counsel to minority members. We are happy to have you here today and I want to share the chairman's appreciation for the participation by the Audubon Society and other groups in the report.

I am a newcomer to this; there were no hearings on the Garrison project in this subcommittee in the 98th Congress and I am confused by one aspect of your testimony and I really would appreciate an explanation of something that you say because it didn't square completely with the way I read the Commission's report.

Let me just quote from your statement——

Mr. Reed. What page, Mr. Van Cleve?

Mr. Van Cleve. Page 10, the third full paragraph.

Mr. Reed. All right.

Mr. Van Cleve. The statement says, and I believe you read this as it is written: "Mr. Chairman, again let me emphasize that critical to our support of this compromise is the deletion of Lonetree. Absent deletion, support for this compromise would simply not exist."

Now let me refer you to page 3 of the final report of the Garrison Diversion Unit Commission, again the third full paragraph. The report states, and I quote:

> Commission recommendations do not preclude future possible development of other features supplemental to the Commission plan. Lonetree Reservoir remains an authorized feature of the Commission plan, but completion of its construction is deferred pending determination of need by the Secretary of the Interior and satisfactory conclusion of consultations with Canada after which appropriation funds by Congress could be sought.

Now, I would appreciate it if you could explain to the subcommittee the connection between your testimony and the Commission's recommendation.

Mr. Reed. Why don't I let Vice President Paulson go at it first, and then I will follow right behind him.

Mr. Paulson. A number of us in the room were present at all the Commission's hearings and meetings, including the last set in Minot. There, as our testimony pointed out, there was probably more time devoted to the issue of Lonetree Reservoir versus an alternative to meet the irrigation needs the Commission was then considering than any other single issue.

It was explicitly considered in about a 16-hour meeting the next, ending in an 8-to-4 vote specifically on the issue of Sykeston now or Lonetree Reservoir now. The Sykeston now idea won.

At the same time, the Commission had, at one or two meetings earlier, adopted the principle, a prudent principle in water resource planning, of not foreclosing options. That, in a nutshell, is the reason for the way I think the Commission language came out.

The support that the Commission's preliminary final report enjoyed at the Minot hearing was predicated on there being a substitution for the Lonetree Reservoir to meet the contemporary water needs of North Dakota. I think continuous support—we are at this moment speaking only for ourselves, for the National Audubon Society—is also contingent on that.

Mr. Van Cleve. Let me, so we can be clear on this, because I have been concerned, frankly, during the testimony today that there not be any misunderstanding. I share your concern for clarity in whatever the subcommittee finally does and for resolution of these issues.

I guess what I am asking you specifically is: Does the Audubon Society support the language in the Commission's final report, which I just read to you?

Mr. PAULSON. Yes.

Mr. VAN CLEVE. I think it follows from that, doesn't it, Mr. Reed, you would not support language specifically intended to deauthorize Lonetree Reservoir?

Mr. REED. I would support it, but I would support the Congress' plan without it, with the firm understanding that the Sykeston was built as the replacement for Lonetree and Lonetree was only there as a further intent. Lonetree is the banner for us; there is no question about that.

Mr. VAN CLEVE. I understand—I think I understand——

Mr. REED. I can live with the Commission's language, Mr. Van Cleve.

Mr. VAN CLEVE. Specifically it says that "Lonetree Reservoir remains an authorized feature of the Commission plan." I am assuming that in any implementing legislation, you would support language that was intended to treat that as one of the Commission recommendations, or am I misunderstanding what is going on here?

Mr. REED. No; we came to support the Commission plan, and we are going to support that. If Lonetree comes up later on, we will take Lonetree on later on. That is—I am not going to tie my hands forever if Lonetree raises its ugly head again, but for the time being, I will commit ourselves—we have committed ourselves to supporting the language in the Commission's plan, and we will. That will allow Lonetree to remain authorized and unconstructed.

Mr. VAN CLEVE. Thank you very much. I appreciate your indulgence, Mr. Chairman.

Mr. PAULSON. If I may add another word, we believe the Commission clearly said Sykeston now to meet the needs that the Commission found, irrigation and M&I, Sykeston plays a critical role in that, and Lonetree not be removed from meeting later future needs. Our concern and, in fact, some of the testimony you have heard today is that some are going to try to reverse that decision of the Commission. They were about as clear as they could possibly be on that point, and it is that clarity that we endorse.

Mr. REED. There are 10 hours of conversations and debate over that issue previous to vote that might be worth reviewing.

Mr. VAN CLEVE. There is a transcript of that?

Mr. REED. Yes. I think Dr. Paulson has very, very brilliantly summarized those 12 hours in that very short statement.

Mr. VAN CLEVE. I am simply trying to make sure——

Mr. REED. I understand.

Mr. VAN CLEVE [continuing]. That we translate this adequately into legislative language.

Mr. REED. I understand exactly what you are saying.

Mr. VAN CLEVE. I appreciate that very much.

Mr. REED. Thank you, sir.

Mr. MILLER. Thank you very much for your testimony.

Mr. REED. Thank you, Mr. Chairman, and best wishes to you on your new assignment.

Mr. MILLER. Thank you.

[Editor's note.—Additional material and comments from the National Audubon Society regarding Lonetree Dam and Reservoir and various plans and recommendations from the Garrison Diversion Unit Commission. Also included is the prepared statement of the National Audubon Society, by Nathaniel P. Reed, chairman of the executive committee of the board of directors, on December 13, 1984, Minot, ND. See table of contents for page number.]

Mr. Miller. Next we will hear from Mr. Ed Osann of the National Wildlife Federation and Mr. Lynn Greenwalt, of the National Wildlife Federation.

Welcome to the committee, gentlemen, and we look forward to your testimony.

[Prepared statement of Lynn A. Greenwalt may be found in the appendix.]

STATEMENT OF LYNN GREENWALT, VICE PRESIDENT, RESOURCES CONSERVATION DEPARTMENT, NATIONAL WILDLIFE FEDERATION, ACCOMPANIED BY EDWARD R. OSANN, DIRECTOR, WATER RESOURCES PROGRAM

Mr. Greenwalt. Thank you, sir.

My name is Lynn Greenwalt, I am vice president for the Resources Conservation Department of the National Wildlife Federation and I have with me my associate, Mr. Osann, who is director of the Water Resources Program.

As you know, the Federation is America's largest conservation organization with affiliates in 51 States and territories and about 4.5 million members and supporters nationwide.

Mr. Chairman, before I begin an abbreviated commentary on the subject at hand, I would like to congratulate you for your assumption of the Chair of this important subcommittee and let you know that I look forward to working with you in the resolution of this and similar problems having to do with water resource development programs in the United States.

Mr. Miller. Thank you.

Mr. Greenwalt. The Commission plan, which we are prepared to support, is indeed a commendable attempt to fashion a compromise for a problem which has been festering for a very long time. In our view, the concepts embodied in the Commission report constitute the only viable framework for a compromise solution to the Garrison controversy.

On balance, it is a good compromise and the National Wildlife Federation supports it. However, this is not to say that the Commission plan is our idea of a truly outstanding reclamation project—because it is not. If it came before us as a project proposed as the Commission described it, we would, of course, reject and resist. However, it is a compromise and it is an appropriate approach to the resolution of a problem, and we support it in the context that it is a compromise settlement.

The Federation is prepared to work within the overall framework of the Commission's report if the State of North Dakota is prepared to do the same, and I perceive from some of the discussion earlier this morning from the Governor's office that they are. I find that heartening.

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I might say, Mr. Chairman, that there has been considerable friction over the years between State officials and the United States Fish and Wildlife Service, a part of the Department of the Interior, and much of this has been at the heart of some of the major controversy that has contributed to the dilemma that has confronted people for close to three decades.

I think it is time that an effort be made to close the book on these disputes in light of the Commission's comprehensive review of the State's resource needs. We would like to urge your committee to give the strongest possible encouragement to a continuation of an attempt to resolve these problems in a manner that is mutually satisfactory to the State and to the Fish and Wildlife Service. I refer specifically to three issues that have been burning ones for some time.

The first being the State-imposed ceiling on the Fish and Wildlife Service's wetland acquisition; the second, the State-requested delineation of all tracks covered by a pre-1976 easement sale by the Service; and finally the question of appropriate enforcement of existing State laws related to wetland drainage.

Now, as to the Commission's plan and its status as a compromise, if anyone believes it is not a compromise, I think it is important to point out that there are virtues and problems associated with this plan, as there are with any compromise. I would like very briefly to sketch some of what the National Wildlife Federation perceives as problems with the Commission plan.

First of all, the plan proceeds from the premise that North Dakota deserves a Federal water project because of previous reservoir construction. This is a debatable premise in our judgment and we reject the inference that such an entitlement should go forward without regard to contemporary evaluations of need or feasibility.

The plan, in fact, would continue negotiations and studies on the use of Missouri River water for irrigation in the Hudson Bay Watershed. We would like this issue to be laid to rest permanently at this time, but we recognize it is part of the compromise.

The plan includes 131,000 acres of irrigation service, which, of course, has with it an array of associated environmental impacts. Clearly, were it not for the intervention of the Federal Government and the carrying forward of the idea of a major irrigation project, there would be no environmental impacts because there would have been no irrigation project. Again, it is part of the compromise.

The plan proposes to retain the Lonetree Reservoir site in public ownership and to include existing wetlands in this area as a credit against other mitigation requirements resulting from the construction of other features. This is illogical and a thing we reject, but it is part of the compromise.

The plan would convey untreated Missouri River water into the Hudson Bay Watershed in the New Rockford area and would rely on engineering features to recapture the return flows and avoid the problems of which so much has been spoken today.

We question the need to risk this kind of biota transfer. Again, that is part of the compromise.

In contrast with the drawbacks associated with the plan, it has some extraordinary desirable elements. It, for example, includes the acquisition and preservation of Kraft Slough and the shelving of Lonetree and Taayer Reservoirs. There is less overall damage to wildlife habitat in the mitigation of project-induced habitat losses on an acre-for-acre basis concurrent with project construction, a notable, noteworthy, entirely supportable facet of the plan, Mr. Chairman.

It gives greater emphasis to municipal and industrial water supply and benefits more people with fewer environmental impacts; reduces the impact on the National Wildlife Refuge System; it maintains James River flows within levels that can be accommodated without environmentally devastating channel work and limits the secretarial discretion to further modify the basic elements of the Commission plan.

We believe the overall concepts of the plan represent a set of features and policies that can command a consensus and early implementation and would like to exploit that to the fullest. However, the federation urges the subcommittee to give special attention to several key issues: To safeguard the environment, improve project financing; and facilitate the timely conduct of the Commission plan.

First of all, status of the Lonetree Reservoir. The Commission plan recommends deferral of the construction pending a demonstration of need. This and subsequent events that tend to interpret what the Commission plan troubles the federation considerably. This has been recounted in some detail in previous testimony.

The idea, finally, that somehow there is a project involving 320,000 acres of irrigation and expenditure of $1.8 billion is hardly a reparation of the compromise we thought had been struck. We believe it is entirely desirable for the State to retain options for the future, and we believe those options should include the option to protect and preserve, as well as the option to develop, and so we would reiterate the idea that Lonetree construction should be deferred and Sykeston construction undertaken. I think that reflects the wishes of the Commission, the deliberations that were undertaken and the vote that was finally rendered. I believe that; I was there; I heard it all.

The integrity of the National Wildlife Refuge System, a thing about which all of us in the National Wildlife Federation feel very strongly. The mitigation plan, the Commission plan suggests that the mitigation of impacts to the National Wildlife Refuge System would be implemented in accordance with the National Wildlife Refuge System Administration Act in its regulations, in spite of the fact that that act does not address mitigation nor does it have regulations that themselves address mitigation.

However, the important point to be made here is that the operative language of the Commission's recommendation could be read to place important responsibilities for mitigation decisions with the Bureau of Reclamation in the State or North Dakota rather than with the Fish and Wildlife Service where the responsibility, the understanding, legitimately lies.

Now, the National Wildlife Federation believes that neither the Garrison Diversion nor any other water project should be allowed to diminish the productivity of the National Wildlife Refuge System. To do otherwise would be to set an unacceptable precedent for refuge system operations nationwide. We urge you, therefore, to support this clear standard.

Fish and Wildlife mitigation features: The damages that will result to fish and wildlife habitat from the construction of the Garrison have been a central part of the controversy from the very beginning. There are some uncertainties about the number of acres of existing wetlands to be credited against the project's mitigation requirements and some other niceties of the details of the plan that we think the subcommittee should evaluate very carefully.

We believe that the appropriate standard for all water projects sponsored by the Federal Government should be the provision of biologically sound measures for mitigation of habitat losses concurrent with the construction of the other project features. For Garrison, we further believe, as did the Commission, that mitigation requirements should be completed on an acre-for-acre basis.

The James River Corridor concerns us. All of us in the conservation movement place very high priority on the retention of the James River Riparian Corridor without substantial alteration. There is some question in our minds about the interpretation of the plan and how it may be reviewed in terms of the role of the James River and the integrity of its reparian habitat. We urge that the channel capacity of the James River and its riparian regime be accepted as the limiting factor and project releases managed accordingly.

Earlier, there was testimony, Mr. Chairman, regarding the options for financing municipal and industrial water supply. We support the idea of considering options that are available under present law and we encourage North Dakota communities to make full use of these programs. The implications of the proposed legislation as it relates to a modified M&I program and to the funding thereof have our support and we agree with the idea of looking again at ways to fund this important dimension of the plan.

There are three or four places in which the Commission report has been intrepreted by staff in ways that seem to us to be unsubstantiated on the basis of the public proceedings of the Commission. First of all is the question of the James River Feeder Canal, which is shown in the final report to be built to a capacity of 1,600 cubic feet per second. That, we believe, is an error and should be looked at carefully. By way of comparison, the authorized plan originally had a capacity of 450 cubic feet per second for the same canal.

We are concerned about the policy of shifting unused irrigation acreage away from the James River Drainage to the West Oaks extension. This was never discussed on the record by the Commission.

Finally, it is proposed that the Sheyenne Lake National Wildlife Refuge be vacated or abandoned. Apparently this was a recommendation arrived at by a staff interpretation of a Commission motion. However, during all the months of the debate over the fate of Lonetree, no policy discussion was made on the record by the Commission that calls for the removal of Sheyenne Lake from the National Wildlife Refuge System.

Furthermore, future development can be undertaken without this Draconian move to vacate the Sheyenne Lake Refuge and we urge your careful clarification of that language.

Now, as a supplemental proposal, very briefly, Mr. Chairman, the National Wildlife Federation recommends that the Secretary study three North Dakota river segments for possible inclusion in the National Wild and Scenic System. The Commission, in its deliberations, recognized that conservation is an important adjunct to development in the State of North Dakota and specifically recognized scenic river designations as appropriate components of the State's water plan.

We urge that the subcommittee recommend the study—and I emphasize study—of three rivers where a scenic river designation would be consistent with the State plan. The details of this proposal are in my fuller statement, Mr. Chairman.

Finally, the National Wildlife Federation will actively support the Commission's plan to resolve the Garrison controversy. We believe that the report of the Garrison Diversion Unit Commission reflects a profound awareness of the need for a change in the authorized project. The Commission struck a compromise, one that placed greater emphasis on municipal and industrial water supply and reduced emphasis on irrigation and did so in the interest of finally bringing a project online that will put Missouri River water to beneficial use in North Dakota.

This is a compromise that we can support, Mr. Chairman, and I am here to assure you that the National Wildlife Federation will do so as your subcommittee and the body continues to deliberate on this program.

Thank you very much for the opportunity to present these views, Mr. Chairman.

Mr. Miller. Mr. Greenwalt, thank you very much for your testimony. I am going to have to go answer a rollcall.

Mr. Beard, the counsel of the committee, has a couple of questions that he would like to put to you at this time.

Mr. Beard. The subcommittee would appreciate receiving some additional background information on your recommendations for the management of Kraft Slough.

Mr. Greenwalt. Very well, sir.

Mr. Beard. The other thing was, could you go into a little more detail about the James River Feeder Canal? As I understand it, the Commission recommended in the final report that it be sized to 1,600 cubic feet per second. There was an errata sheet to change it back to 450, but the errata sheet was not issued with the final report?

Mr. Greenwalt. Apparently this is the problem. I am suggesting for a second that there was any intention to do this, but it is clear that the final report contains a figure that is very much in excess of what anybody dreamed would be the recommendation of the committee.

Mr. Beard. OK.

It has just been pointed out to me that the James River Feeder Canal is sized in the Bureau's budget justification document of 450 cubic feet per second.

Mr. **Greenwalt**. All right, then, as long as the numbers are understood by everybody involved and there is not some time in the future a representation that 1,600 cubic feet per second is the order of the day, we are happy.

Mr. **Beard**. The other thing the subcommittee would appreciate receiving is some more background information on the proposal to place three rivers in the wild and scenic river study catagory. Would you provide information on that recommendation for the record.

Mr. **Greenwalt**. I would be delighted to do that.

Mr. **Beard**. Thank you.

[Editor's note.—The information requested by Mr. Beard may be found in the appendix under cover of a letter dated April 12, 1985, from Lynn Greenwalt to Chairman Miller. See table of contents for page number.]

Mr. **Osann**. If I could respond at this point on that point, we will provide a more complete response for the record as the subcommittee may wish.

The river segments that are referenced in the testimony are all either in State scenic river status or proposed for study for inclusion in State scenic river status. They were also all included in the national inventory of rivers potentially eligible for inclusion in the National Wild and Scenic River System that was conducted by the National Park Service and, I believe, published in 1981.

Mr. **Beard**. Thank you.

AFTER RECESS

Mr. **Miller**. The subcommittee will reconvene here. My apologies for the interruption and for the slight delay.

Next, the subcommittee will hear from Mr. Richard Madson, who is from the Garrison Task Force.

Welcome to the committee.

Mr. **Madson**. Thank you.

Mr. **Miller**. And thank you for sticking around this long.

Mr. **Madson**. It gave me a chance to practice my testimony one more time.

[Prepared statement of Richard Madson, with attachments, may be found in the appendix.]

STATEMENT OF RICHARD MADSON, GARRISON TASK FORCE

Mr. **Madson**. Mr. Chairman, my name is Richard Madson. I reside in Jamestown, ND, and I want to thank you for the opportunity to testify before you here today.

I am actually representing three organizations: The Garrison Task Force——

Mr. **Miller**. Let me just say, and you proceed in the manner in which you are most comfortable, but to the extent to which you can summarize will be appreciated. The House is about to go on legislation that will require me to leave again for votes and I would like to hear all of the testimony. Your written material will be put in the record in its entirety so——

Mr. **Madson**. I appreciate that, Mr. Chairman, and I will summarize.

Mr. **Miller**. Thank you.

Mr. **Madson**. The organizations that I am representing here today are the Garrison Task Force, the Committee to Save North Dakota, and the North Dakota Chapter of the Wildlife Society. In addition, I will introduce for the record statements from the Upper Missouri River Chapter of the American Fisheries Society, a position by the United Family Farmers of North Dakota and position papers by all of the active Audubon chapters in North and South Dakota.

Mr. Chairman, I have worked on the Garrison Diversion issue full-time since 1972. If there is anybody in the country that would like to see this issue resolved, I think I certainly would be at least close to the top of that list. I would urgently like to do something else with the rest of my career.

I hoped, as I am sure all Members of Congress did and all members of the national conservation community, that the Commission process that we have gone through might find some means of finally resolving the controversy before us.

I think the most important thing that needs to be reemphasized at the risk of redundancy from what Mr. Conte and others have said, is that as the Commission report stands now, and particularly as the legislation you are considering stands now, the most controversial water project in American history, by criteria of floor fights in the House and the Senate, 250,000 Garrison Diversion Project, would actually become a 320,000 acre project.

There is nothing that I see in either the final report of the Commission or in the legislation you are considering today that deauthorizes one single acre of the irrigation or one single feature that has given Garrison its deserved reputation. It is a very controversial and questionable project.

When the formation of the Garrison Commission was first announced, I voiced concern that the process would prove to be a Trojan horse stuffed with bulldozers. I would have been very pleased had my prognosis been proved wrong, but that horse, if you will, is indeed full of bulldozers and they are about to be unleashed for construction that will cause massive environmental damage, destruction of good farmland, and disruption of a number of family farm units.

The Garrison Unit Commission established a framework via which legitimate water needs in North Dakota might be met as they pertain to development of municipal and industrial water supplies. Unfortunately, the Commission also saddled that positive opportunity with some of the most expensive and least justified irrigation development in American history, with continuing severe and unacceptable damage to a number of national wildlife refuges, with increased damage to the James River of the Dakotas, and worst of all, with a clear route for project promoters to develop the entire project.

In a letter called "An Open Letter to the Citizens of North Dakota," Commission Chairman David Treen stated on January 16, 1985—this was sent throughout the news media in the State—that the Commission "has advanced a water distribtuion plan for North Dakota, a plan that has not compromised the basic elements that may someday be used."

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It is precisely because those basic elements are still in place that the Commission has not resolved the Garrison controversy.

Mr. Chairman, while those of us who have opposed the Garrison Project for many years do not agree with the position of our congressional delegation, we will give them credit for ingenuity and we will not soon forget the time that they obtained a supplemental appropriation for the Garrison Project by tacking it onto legislation providing for disaster relief for the Mount St. Helen's volcano eruption. We are not willing to play Lonetree roulette every time an appropriation bill comes before Congress for the rest of time.

Project promoters are really saying, because opposition is well organized now, we will just build part of the project, retain the authorization for the rest and then build it at a later time, perhaps when the opposition isn't so strong.

If this subcommittee is to do what I really hope it can and must do to meet legitimate water needs in North Dakota, you need to start using the scalpel of deauthorization, if you will. Beginning with Lonetree Reservoir, continuing with all project features and irrigation areas not included in the Commission's 130,940-acre initial project and continuing by deauthorizing authorization for irrigation and associated project features along the James River.

If you do that, you will still maintain the framework for the best municipal water development plan and for rural water development that North Dakota has ever had an opportunity to achieve. You will remove additional damage to national wildlife refuges in the James River; you will resolve the international controversy once and for all; and most importantly, you will again provide the opportunity to shift the emphasis of our utilization of the Missouri River to that of municipal and rural water development.

When I appeared before the Garrison Diversion Unit Commission, I recommended that as an alternative to supplying irrigation development in the James River, that a pipeline instead be constructed to Pipestem Creek, a tributary of the James—and I am summarizing here, I will get into much more detail in information that I will furnish your committee—but in summary, we recommended that a pipeline be built from the end of the McClusky Canal to Pipestem Creek, a tributary of the James River.

If irrigation development along the James were deleted and if that pipeline replaced the Sykeston Canal, the New Rockford Canal and the James River Feeder Canal, you could still meet the legitimate rural water needs and municipal water needs along the James River System; you could still via pipeline delivery from the McClusky Canal to the Sheyenne River eventually provide all of the municipal benefits anticipated for the Red River Valley and you wouldn't be destroying so much farmland; you wouldn't be damaging so much important wildlife habitat; and you would be saving, as we calculate it, at least half a billion dollars for the American taxpayer.

Now, I noted earlier that questions were asked as to the irrigation costs to the project. Mr. Chairman, Washington, over the past week or so, has seen a number of delegations from farm States across the nation expressing concern over the current status of the situation in American agriculture.

Absolutely the worst thing that this committee can do, not just for North Dakota farmers, but for American farmers, is to authorize irrigation to produce more crops which are already in surplus, driving down commodity prices even further, and forcing even more people off the land. Yet, at a time when there is tremendous publicity around the nation as to the problems that farmers have, paradoxically farmers have because they can produce things so well, there has been seemingly little publicity for the fact that this subcommittee is actually considering, if changes aren't made, providing the most intensive, most expensive irrigation subsidy in the history of American agriculture $1.6 million per farm.

If you took that cost, 1.6 million, invested it at 10 percent and just gave it to the owners of those 408 farms, you would be giving them more than five times what the project report shows is to be the anticipated average earnings from irrigation development. The last thing that American farmers need—perhaps short of David Stockman being named Secretary of Agriculture—is for this committee or any other organization to support that type of incredible irrigation subsidy.

What I am going to say now is difficult because I have been for 15 years a member of the National Audubon Society. I have been a former staff member, including a former vice president of the National Audubon Society. I continue to respect totally the conservation philosophy of that organization, but I believe the Audubon Society is trying to come down on two sides of the key question of this issue; that is, what is to be done with Lonetree Reservoir.

I wish to call your attention to the National Audubon Society's Audubon Action Newsletter dated February 1985. An article on page three, which I will introduce into the record entitled "Garrison Finally Diverted." Part of that article claims: "The Lonetree and Taayer Reservoirs, which would have flooded valuable waterfowl habitat, will not be built."

Yet, in response to the very specific and important questions of your counsel, the National Audubon Society's representatives testified just a few minutes ago that they were supporting language that says Commission recommendations do not preclude possible future development of other features supplemental to the Commission plan. Lonetree Reservoir remains an authorized feature of the Commission plan, but completion of its construction is deferred pending a determination of need by the Secretary of Interior, satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought.

Based on the legislation that Interior has submitted to your committee to date, I am prepared to say I think that they would probably be willing to determine Lonetree is necessary anytime Mark Andrews and Quentin Burdick ask them to.

I would also point out that Canada, in accepting the findings of the International Joint Commission, actually opened a route via which, with some changes in Lonetree, Canadian objections would be removed. That leaves us down to the question of will funds be appropriated? How long did that remain a burning issue after the report of the Commission came out? Almost 12 hours.

I am introducing for the record, although I think you can read the headlines from where you are sitting, an article from the December 16, 1984, edition of the Bismarck Tribune: Andrews: "I will try to get Lonetree back." Let me quote just a part of it.

"Senator Mark Andrews said Saturday that he is prepared to offer an amendment in the Senate to restore the Lonetree Reservoir to the Garrison Diversion Project. The Republican lawmaker from North Dakota said he was discouraged that the Garrison Diversion Unit Commission's decision in Minot late Friday cut Lonetree from its recommended changes to the water project," but Andrews noted that the Commission, established by Congress to study Garrison, left open the prospect for the 33,000-acre reservoir to be built in the future without specific authorization from Congress. "It is held for possible use, but that really gives us the opening for the possibility of by amendment adding Lonetree back into this package," Andrews said.

The timing of any Lonetree amendment "this year, next year or 2 years down the pike is a tactical decision" to be worked out among the State's congressional delegation, Andrews said.

Mr. Chairman, it is absolutely clear that anybody who believes that this language isn't going to eventually lead to construction of the Lonetree Reservoir either hasn't followed the legislative history of the Garrison controversy for the last decade or more; has never been to North Dakota; has never talked to North Dakota's congressional delegation; or hasn't read any North Dakota newspapers for the last three months or all of the four above.

North Dakotans are actively planning to push for Lonetree Reservoir. It is their key for development of the original authorized project which the legislature has said is the official mandated position of the State. This provides them the mechanism to do that, and unless you start deauthorizing the features that have led to this controversy over the last 15 years, instead of deferring, then we have really achieved nothing.

If I have the choice between having the show-down fight over Lonetree in the coming session when Congress will be more aware of the problems and the nature of this controversy and more wanting to solve it than ever before, I would much rather have that issue settled now once and for all than to have to sit waiting in dread when every single appropriation bill comes down the pike from now on, wondering whether it will get tacked onto the Ethiopian relief bill or what have you for North Dakota's delegation to try to sneak that through.

I am upset when the Audubon Society on one hand tells its membership Lonetree won't be built, when this language and the record of the position of the State of North Dakota and everything that North Dakota's promoters have said since clearly indicates the opposite.

I want to point out for the record that the National Audubon Society, while they say they support the Commission's plan—and those were indeed speakers for the National Society—that position is not supported by a single one of any of the active Audubon chapters in either North or South Dakota, and I am introducing resolutions and position papers from those four active chapters to that effect into the hearing record.

I wish to summarize just briefly some of the material that the United Family Farmers have asked me to submit for your consideration as well. They say—and I will be very brief here, but I think it is important that you understand the background of this organization.

The majority of our 2,000 members are farmers and landowners in the James River Valley in northern South Dakota. Our organization was instrumental in halting construction of the Oahe irrigation project, which would have been an environmental and economic disaster. We have played a major role in promoting and achieving the construction of the WEB pipeline which will meet the water needs of 30,000 people at a fraction of the cost of Oahe.

Then they say—and this is the meat of their testimony:

> We have had a chance to review the Commission's final report. We are appalled at their recommendations. The negative impacts to South Dakota would be greatly increased over those of the authorized project. At a time when virtually everyone has become aware of the Federal deficit and the threat it poses to our economic survival, the cost of Garrison would not be significantly reduce by the Commission's recommendations. With the exception of Taayer Reservoir, construction of project features that have generated most objections from environmental and farm groups would not be precluded by the Commission plan. It is hard to justify an investment from the Federal Treasury of $1,650,953 per farm for irrigation at a time when low grain prices, large surpluses are a major economic problem for American agriculture.

I would like to make brief reference to the position statement taken by the Upper Missouri——

Mr. **Miller**. I am really going to have to prevail upon you, Mr. Madson. We are going to run out of time very quickly and I have got three people behind you that have been waiting all day. So if you would like to quickly summarize, I would appreciate it very much.

Mr. **Madson**. Thank you, sir, I appreciate time constraints. I will do so.

In summary, if you are to resolve the Garrison controversy, all features not included directly in the Commission plan should be deauthorized. In addition, if we are to remove the major retained environmental and economically unjustified damage to the James River System, we recommend that James River irrigation development be deleted and deauthorized as well. We support the concept of the municipal and rural system that has been advanced by this project.

I would like to say just in closing, Mr. Chairman, that in discussions with your staff, I asked for permission to show at some time deemed appropriate a slide series that would give committee members and their staffs a chance, not only to hear some of these concerns, but to actually see the areas involved, and it is my understanding that I will be permitted an opportunity to do so in this room tomorrow morning at 10 o'clock.

Mr. **Miller**. That is correct.

Mr. **Madson**. I would also like to say just as a final statement that the representative for the Sierra Club presenting the testimony of the national organization, Mr. Steve Hiniker, could not be here today because of another conflict. I will be submitting the position of the Sierra Club into this hearing record. In summary, that position is to not accept the Commission plan.

Thank you.

[EDITOR'S NOTE.—The prepared statement of Stephen Hiniker may be found in the appendix. See table of contents for page number.]

Mr. MILLER. Thank you. Thank you very much for your testimony.

Next the committee will hear from Mr. Mike Dwyer, from the North Dakota Water Users Association, and Mr. Vern Fahy, the State water engineer.

[Prepared statements of Michael Dwyer, with attachments, and Vernon Fahy may be found in the appendix.]

PANEL CONSISTING OF MICHAEL DWYER, NORTH DAKOTA WATER USERS ASSOCIATION; AND VERNON FAHY, STATE ENGINEER, SECRETARY, NORTH DAKOTA WATER COMMISSION

Mr. DWYER. Mr. Chairman, I will try to summarize my written remarks——

Mr. MILLER. Thank you.

Mr. DWYER [continuing]. As briefly as possible.

The first thing I want to say is I am the executive vice president of the North Dakota Water Users Association, which is comprised of over 1,000 farmers, ranchers, irrigators, water interests, businesses, rural cooperatives, utilities and energy companies and other members throughout North Dakota.

In addition to representing the North Dakota Water Users Association before you today, I am representing the North Dakota Farm Bureau, with over 21,000 member farm families; the North Dakota Ag Coalition, comprised of over 20 North Dakota farm organizations; the North Dakota AFL/CIO, with 18,000 members; the building and construction trades council, with 7,000 members; the bankers, representing 173 of North Dakota 178 banking institutions; the Greater North Dakota Association, with approximately 2,500 member businesses; North Dakota Association of Counties, representing every North Dakota county; the League of Cities, representing North Dakota's 366 cities with 460,000 of North Dakota's 650,000 people; the retailers, with 800 member businesses; the North Dakota Association of Soil Conservation Districts, all 62 soil conservation districts; stockmen; the water research districts; the rural electric cooperatives in North Dakota representing over 90,000 rural electric consumer families; and the Anamoose Chapter of the North Dakota wildlife federation, which is the second largest chapter of the Wildlife Federation in North Dakota.

The reason I highlight the membership of these organizations and point out to you that they are joining in our testimony is to show you that North Dakota overwhelming—that the Garrison Diversion project has overwhelming support from every corner of North Dakota, from every level of government, from virtually every interest in North Dakota, private or public, and certainly from the grassroots of North Dakota. Our support is united and it is overwhelming in its total.

Mr. Chairman, the basic objective of North Dakota is to divert Missouri River water eastward to provide a long-term water supply for future generations for multiple purposes, including irrigation, municipal industrial recreation and wildlife water uses. More specifically, it is North Dakota's objective to put water into the Sheyenne, Red, Souris Rivers, and the Devils Lake Basin for multiple uses.

During the Commission's proceedings, it was clear to us in its final recommendations that the primary objectives of the National Audubon Society have been satisisfied. Why? Audubon wanted 100,000 acres of irrigation and the Commission recommended 113,000 acres, plus 17,000 acres on North Dakota's Indian reservations. Audubon wanted Taayer Reservoir to preserve Kraft Slough and Kraft Slough was preserved. Audubon wanted heavy emphasis on municipal water and the Commission recommended that.

Audubon wanted for acre-for-acre replacement for lost wetlands and the Commission recommended that. Audubon wanted no Lonetree, which was the central issue, as Audubon has testified today, of the Commission's deliberations and we have no Lonetree.

Under the Commission plan, North Dakota sacrifices from the original promise of 1 million acres of irrigation, North Dakota would presently receive only 113,000 acres of irrigation. Taayer Reservoir would be perserved. North Dakota's basic objective is to put water into the Souris, Sheyenne, Red and James Rivers and the Devils Lake Basin for multiple uses. Lonetree is necessary to meet this objective; however, Lonetree will not be constructed.

Benefits from Garrison to South Dakota would be foreclosed under the Commission plan. It is not surprising that Audubon has endorsed the Commission final report.

I would also like to address briefly the Lonetree Reservoir. As Audubon has testified today, it is the banner issue and was the central issue of the Garrison Commission's recommendations.

When you consider the advantages of Lonetree versus Sykeston, it is amazing that even the Audubon Society doesn't fight for Lonetree. Consider the cost. Sykeston is more expensive. When you consider engineering, Sykeston is unproven. Consider the operation, Sykeston is deficient in that it can't serve water in the dryest years and pumping is required, as opposed to gravity flow.

When you consider the future under Sykeston, the future is foreclosed because we cannot serve water to the Souris or the Devils Lake Basin. For wildlife, with Sykeston you preserve the 1,009-acre Sheyenne National Wildlife Refuge. With Lonetree, at 1,640, you have 20,000 acres of water with 13,000 acres of upland and wildlife habitat. 1,620, which was what North Dakota recommended during the Commission proceedings, you have 9,000 acres of water, but 24,000 acres of upland and wildlife habitat.

I might say that we have several manmade national wildlife refuges in North Dakota that are tremendous for wildlife and Lonetree would be just as well.

I would like to briefly address some wildlife and wetland issues. One of the most unfortunate things about the Garrison diversion project is the misconception that Garrison is bad for the environment and bad for wildlife. This misconception is terribly unfortunate, not only because it is untrue, but because North Dakota's wildlife base needs Garrison just as much as the people who want to irrigate, the cities who need water and the people who want water for industrial and recreation purposes.

Most North Dakotans are conservationists. We hunt, we fish, we care about and support our wildlife. North Dakota produces more ducks than any other State in the lower 48 States. Those of us who live and hunt in North Dakota know that Garrison diversion would actually enhance North Dakota's environment and wildlife base.

We can see the lack of water in many lakes and wetlands during dry years and how just having canals and reservoirs full of water will enhance our environment and wildlife base. We can see that when North Dakota is dry, it doesn't raise very much waterfall. We can see the fantastic wildlife habitat that has been developed by completed features of the Garrison project, such as Lake Audubon and McClusky Canal. We can see dry, alkalines, smelly lakes being freshened and developed into wildlife recreation and fishing havens. We can envision the Souris, Sheyenne, Red and James Rivers flowing with clear clean water instead of becoming stagnant.

We can see that wetlands will be destroyed because of Garrison, but we know that those wetlands will be replaced and additional wetlands will be set aside forever to more than make up for that loss. We would be disappointed if the opportunities to preserve, to improve our wildlife base through the Garrison project are lost.

When you think about the Garrison diversion project and wetlands, consider these facts. North Dakota has approximately 2.5 million acres of wetlands remaining, approximately 98 percent of North Dakota's wetlands are not affected by Garrison. If North Dakota loses its remaining wetland resource, it will not be because the Garrison diversion is constructed.

Wetland losses caused by Garrison will be completely mitigated. Under the Commission plan, the mitigation plan is even more aggressive. For example, Rush Lake is a lake and wetland complex that has been completely drained. It is proposed that Rush Lake be acquired and restored for wildlife mitigation purposes for Garrison. Rush Lake, with its 7,600 acres, is undoubtedly one of the finest wildlife habitats in North Dakota and could not be restored without Garrison. Wetland losses caused by Garrison will clearly be replaced.

In addition, wetland losses in the Garrison project require significant wildlife enhancement, resulting in a net gain for wildlife.

Finally, the manmade Garrison diversion project will provide the same kind of wildlife benefits as is provided by the man-made national wildlife refuges in North Dakota that would be affected by the Garrison diversion project, such as Arrowwood. There are other manmade national wildlife refuges in North Dakota as well.

I will skip to the final portion of my testimony, Mr. Chairman. Our present position is this: Our testimony points out that we believe the National Audubon Society's objectives have been more satisfied by the Commission plan, while North Dakota is required to make extensive sacrifices under the Commission plan. However, we do not oppose the Commission plan.

The Commission came up with the best compromise that it could. While we are not satisfied, we are willing to live within the parameters of the Commission's recommendations. Thus, with the exception of the M&I plan—and I should point out that the North Dakota Water Users and all the groups that I am representing today strongly and enthusiastically support Governor Sinner's testimony in support of the North Dakota M&I plan.

With the exception of the M&I plan, we urge your adoption and favorable considerable of H.R. 1116. I heard the National Audubon Society testify today that they will support the Commission plan if North Dakota does the same. Congressman Dorgan testified to you that North Dakota supported the compromise; Governor Sinner testified that North Dakota supported the compromise; and the Water Users Association and all of the groups that I am representing today support the Commission's plan.

That concludes my testimony, Mr. Chairman.

Mr. **Miller**. Thank you.

Mr. Fahy.

Mr. **Fahy**. Mr. Chairman, members of the committee, my name is Vern Fahy. I am State engineer for the State of North Dakota.

First of all, I would like to—before I begin my statement—I would like to say that, as you heard Mr. Reed of the Audubon Society speak about municipal problems in North Dakota and 82 percent of our communities having bad water, I want you to know that no one is getting sick in North Dakota from the water they use. They may not have the best water and they may want improvement, but they do not meet the mandatory denial regulations of the State Health Department. They have still got a little ways to go, and our plan would call for a systematic way of approaching that.

Second, with respect to his statements concerning the uniqueness of Lonetree Reservoir, that reservoir is unique from only one standpoint, and that is from the reservoir standpoint. A gentleman by the name of Fred Wright, who is a qualified wildlife specialist, stated in his paper, and we will file it for the record when we get home, to the staff that there was nothing unique about Lonetree Reservoir as a wildlife area. So I would like to make those two points.

The North Dakota compromise plan, which is what we advanced before the Commission, called for the completion of Lonetree Dam and Reservoir, which is approximately 60 percent complete, as opposed to the Commission staff's proposal to construct the Sykeston Canal, a costly bypass canal around the almost completed Lonetree Reservoir. State witnesses called the Commission's attention to the 200-foot difference in elevation between the beginning of the Sykeston Canal and its terminus at the New Rockford Canal and the costs associated with the construction of features to accommodate this elevation differential.

They pointed out the problems that will be caused by the fluctuation in Jamestown Reservoir, a facility built many years ago by the Bureau of Reclamation as a part of the original project. They also testified that the elimination of Lonetree Reservoir will allow saline water, which has accumulated in Lake Audubon and the McClusky Canal, to be transported through the Sykeston Canal and into Arrowwood Refuge on the Jamestown Reservoir.

The North Dakota compromise included a reduction in irrigated acreage from the 250,000 acres authorized by Congress in 1965 to an initial 113,000 acres confined to the James River Basin, plus 17,500 acres on the Indian reservation. It also included a proposal to serve water resource needs in the James River Basin in South Dakota.

The State plan included the construction of a municipal industrial outlet for Lonetree Reservoir to the Sheyenne River to satisfy the needs of the cities along the Red River. The plan emphasized that future municipal needs would be accommodated by alternating the flows in the other streams when negotiations have been completed.

The State included $60 million for wildlife mitigation and enhancement purposes. Also included in the plan were the costs of the construction of an alternative for the Taayer Reservoir. The North Dakota compromise recognized the need for additional recreational features to supplement those already in existence and recommended appropriation of $8 million to be matched by State funds to develop the program.

Loss of the North Dakota compromise plan in capital terms were estimated to be $695,470,000. After much discussion and numerous recesses and several motions, the Commission adopted the recommendation which eliminated Lonetree Reservoir and substituted the Sykeston Canal; eliminated water delivery to South Dakota; provided for 113,000 acres of irrigation of the James River Basin; provided irrigation and other benefits to the Indian reservation; and established several boards or commissions to monitor project compliance.

Once Lonetree was eliminated by an 8 to 4 vote, the long process moved to conclusion. Cost of the plan is finally adopted—capital costs, as finally adopted by the Commission, were $1,119,363,000.

The final decision of the Garrison Diversion Unit Commission, regardless of the mechanics used to reach it, was based on the question of whether this State should devote major resources to provide a wetland base for replacement of wetlands lost in other States by other developments, or whether North Dakota should be allowed to utilize the waters of the Missouri River for its long-range multipurpose water development.

Mr. Chairman, North Dakota was actually a victim of time. We were authorized in 1944—we didn't get around to it, but the other States did—they converted their wetlands. They converted them to all kinds of uses, so what is left? North Dakota.

Now we have all the other States and the wildlife organizations saying, "You didn't get to it, North Dakota, so you have got to reserve yours."

It is absolutely essential for everyone to recognize that under the Commission plan, Lonetree Reservoir is not abandoned. It is only deferred. The distribution of the waters in the Missouri River to satisfy the needs of the people of central and eastern North Dakota and to satisfy the needs of South Dakota depends on the completion of Lonetree Reservoir.

Mr. Chairman, 96 percent of the water available for delivery in North Dakota is in the Missouri River.

Mr. Chairman, and members of the committee, the State has agreed to many changes in the Garrison Diversion project since 1965 in order to maintain harmony and keep the project moving forward. We have given priority to concerns of Canada; we worked with the fish and wildlife agencies to meet their concern. We have successfully defended the project in the courts many times and we believe that we made a technically superior case before the Commission in favor of the North Dakota proposal.

Although our position was not sustained by the Commission in its final decision, we feel we must move forward now and build the facilities necessary to serve the people in the project area.

Thank you, Mr. Chairman.

Mr. MILLER. Thank you very much for your testimony. I want to thank all the witnesses for their testimony.

I would have to say that after this hearing, the irrigation side of this project, in my mind, has some very serious questions that are going to have to be asked with respect to the cost. As I mentioned earlier, I am a member of the Budget Committee. I am late for a meeting right where members of the Budget Committee will go through a series of choices on cuts in the budget which will be in the millions of dollars, $10 million here, $5 million here, in some cases, hundreds of millions of dollars and in some cases, billions of dollars. In many instances, those cuts will affect thousands and thousands of people.

There are some disturbing figures on the irrigation side of this project with respect to the cost to deliver that water to those farms and the repayment schedules that are supposedly used to justify the project.

I am no way prejudicing that case, but I think there are some questions that are going to have to be asked if this legislation is to stand a chance in the halls of Congress. We, with a great deal of reluctance by many Members of the Congress, voted yesterday to spend up to $3 billion in farm credit for farmers and now we see almost $3 billion being used for 400 farms. That is what the Treasury is going to pay to fund this project.

We are fully prepared to examine and defend those figures. However, they are troublesome in these times. This is not 1965; this is not 1975; this is 1985 and our deficit this year is $200 billion. We are in a lot of trouble as many representatives of the agricultural interests have told us over the past couple of months. And they are absolutely correct. Actually, they have been telling us longer, that these interest rates are killing them. High interest rates are hurting people in my district, too. The agreed-upon core seems to be the deficit. The deficit makes for many different decisions—different decisions today than many of us would have made in the past. I include my own State and their water projects in that discussion also.

So I appreciate all of the testimony. I appreciate the work of the Commission to try to help the Congress arrive at a conclusion to this problem. I can assure all of you that this will get our attention and we hope to be able to work forward toward a resolution of this issue for both the Congress and for the people of the State of North Dakota.

Again, thank you very much.

Mr. FAHY. Mr. Chairman, might I just respond?

Mr. MILLER. Yes.

Mr. FAHY. You mentioned costs. I certainly hope that as you continue your deliberations on this, you will remember that many of the costs associated with that per-acre or that per-farm cost have been doing for many, many years a great deal of benefits in flood control, water supply, power development, everything, for the whole Missouri River Basin——

Mr. Miller. I understand.

Mr. Fahy [continuing]. Lower basin, so please keep that in mind.

Mr. Miller. All right.

Mr. Fahy. We have sacrificed. We would like to gain.

Mr. Miller. I understand that very well. OK, thank you very much.

The committee stands adjourned.

[Whereupon, at 2:05 p.m., the subcommittee was adjourned, to reconvene subject to the call of the Chair.]

APPENDIX

THURSDAY, FEBRUARY 28, 1985

ADDITIONAL MATERIAL SUBMITTED FOR THE HEARING RECORD

GARRISON DIVERSION UNIT
COMMISSION

Final Report
to the

Secretary of the Interior
Senate Committee on Energy and Natural Resources
Senate Committee on Appropriations
House Committee on Interior and Insular Affairs
House Committee on Appropriations

In accordance with

Public Law 98-360, Section 207

December 20, 1984

Garrison Diversion Unit Commission

Room 603 Reporters Building
300 Seventh Street SW
P.O. Box 23265
Washington DC 20026
(202) 453-3800

Technical Staff
P.O. Box 261410
Lakewood CO 80226-1410
(303) 239-0706

Public Contact Office
2005 North Kavaney Drive
Bismarck ND 58501
(701) 255-4011 Ext 4641

December 20, 1984

Honorable William C. Clark
Secretary of the Interior
Department of the Interior
Washington DC 20240

Dear Mr. Secretary:

With this report, the Garrison Diversion Unit Commission completes a mission entrusted to it by the Congress little more than four months ago.

The primary responsibilities of the Commission were to review the contemporary water development needs of the State of North Dakota and to propose modifications to the Garrison Diversion Unit.

The Commission reviews and findings are critical to the people of North Dakota and the future of this State. In meetings and public hearings, officials and residents of North Dakota and its neighboring States, Canada, and the Province of Manitoba repeatedly emphasized this point as they elaborated their specific concerns.

We, in turn, have approached our duties with open minds and a sincere determination to develop fair and equitable recommendations.

This report is the product of far more than the 12 persons who were appointed to the Garrison Diversion Unit Commission last August. It embodies the substantial work of the Commission's Administrative and Technical Staffs in Washington, D.C., and Denver. It is also the distillation of the many recommendations and observations offered by scores of individuals and organizations, national, regional, and local, who so generously contributed to the work of this Commission.

The Commissioners have covered a broad spectrum of issues and evidence within the bounds of a severe time constraint. We submit this report with confidence in the strong consensus which underlies its recommendations and we believe that it represents a sound and well-reasoned resolution to issues surrounding the Garrison Diversion Unit and to North Dakota's contemporary water development needs.

We wish to express to the elected and appointed officials and to the citizens of North Dakota, the Commission's warm thanks and appreciation for their assistance, their cooperation, and their hospitality.

We wish further to express our appreciation for the opportunity to serve in this most challenging and rewarding capacity.

Sincerely yours,

David C Treen
David C. Treen

Ann A Zorn
Ann Zorn

John C Whitaker
Dr. John C. Whitaker

Henry C. Wessman

J W O'Meara
J. W. O'Meara

John D Paulson
John D. Paulson

J Gordon Milliken
Dr. J. Gordon Milliken

N. R. Livermore Jr.
Norman Livermore

Patrick Francis Noonan
Patrick Francis Noonan

James G Teer
Dr. James G. Teer

Henry Bellmon
Henry Bellmon

William B. Ingersoll

EXECUTIVE SUMMARY

The Garrison Diversion Unit Commission was appointed by the Secretary of the Interior on August 11, 1984, to review the controversy surrounding the authorized Initial Stage of the Garrison Diversion Unit, to evaluate the contemporary water needs of the State of North Dakota, and to make recommendations.

Six points became obvious to Commission members early in the process:

1. The State of North Dakota deserves a Federally-funded water project, at least some part of which should be in the form of irrigation development, for land lost through inundation by reservoirs of the Pick-Sloan Missouri Basin Program.

2. The Commission agrees with Congress that a moral commitment was made in 1944 to the Upper Missouri Basin States and Indian Tribes with the passage of the Flood Control Act of 1944. The language of the statute establishing this Commission reinforces this view. The State of North Dakota sacrificed hundreds of thousands of acres, much of it prime river bottomland, for the greater benefit of the nation. In return, the Federal Government promised assistance in replacement of the economic base of the State and Indian Tribes. There is evidence that this has not taken place.

3. Municipal and industrial water needs are recognized as important by a broad spectrum of groups throughout the State.

4. Until certain technical concerns are resolved, construction of the Garrison Diversion Unit as currently authorized would be of serious concern to Canada.

5. Some environmental impacts that would result from the 1965 Initial Stage of the authorized plan should be avoided or more stringently mitigated than required by the authorized plan.

6. Existing wetlands throughout the State of North Dakota represent a valuable natural resource to be protected to the extent possible.

Based on these points, Commission members formulated an alternative plan, hereinafter referred to as the Commission Plan, to provide the State of North Dakota with a Federally-funded water development project which avoids the most serious international and environmental impacts resulting from the authorized plan.

The Commission Plan is configured with philosophic and practical consideration of three principles that the Commission approved following the second of its public hearings in Fargo, North Dakota, on November 16-17. Those principles are:

1. To not foreclose future opportunities of the State of North Dakota to pursue irrigation and other development of the Hudson Bay drainage area and elsewhere in the State.

2. To meet the needs of the greatest number of people at an acceptable cost.

3. To minimize environmental impacts.

The Commission concludes that residents of North Dakota deserve a Federal water-development project as a result of lands being lost to reservoirs of the Pick-Sloan Missouri Basin Program. The Commission Plan meets that Federal obligation with a project that minimizes environmental impacts, substantially reduces Canadian concerns, and provides benefits for a majority of North Dakota residents.

The Commission Plan retains most of the principal supply works from the 1965 authorized Garrison Diversion Unit which are needed to provide Missouri River water to meet contemporary agricultural, municipal, industrial, and rural needs of North Dakota. The Commission recommends that, because of its unique wildlife habitat value, the site designated in the 1965 authorized plan for the Taayer Reservoir, known as Kraft Slough, be protected. Taayer Reservoir will be replaced by a reservoir to be located near Glover, North Dakota. The Commission recommends that the Taayer site be protected in perpetuity for wildlife purposes. The Commission recommends construction of Sykeston Canal for the purpose of connecting the McClusky and New Rockford Canals as principal supply works. The Commission recommends that land acquisition be completed at the Lonetree Dam and Reservoir site, ownership be retained by the United States, and that the Bureau of Reclamation enter an agreement with the State of North Dakota for wildlife management of the area. Such management is to be conducted in a fashion that does not preclude future use as a reservoir should future water storage needs require, and environmental and international concerns permit, Lonetree Dam to be completed.

The Commission Plan provides irrigation service to about 130,000 acres. Moreover, the Commission recommends that all irrigation be restricted to lands that drain into the Missouri River Basin to meet the concerns of Canada. The Commission Report proposes studies and consultations with Canadian officials to develop methodologies that would permit the use of Missouri River water under future proposals for irrigation in areas of North Dakota that lie in the Hudson Bay drainage. The Commission recommends that the current consultation process continue with particular emphasis on those Commission Plan elements designed to avoid potential international impacts.

The Commission Report contains several recommendations that expand significantly the availability of Missouri River water and potentially available ground water to municipal, industrial, and rural supply systems. The Commission Plan provides for conveying treated Missouri River water to the Sheyenne River to provide an assured municipal and industrial water supply to the cities of Fargo and Grand Forks, North Dakota. Additionally, the Commission Plan includes systems of pipelines and treatment plants and would provide water service to approximately 376,000 people in as many as 130 towns and cities. The Commission recommends that part of the power revenue repayment assistance previously reserved for the Garrison Diversion Unit irrigation function be shifted to the municipal, rural, and industrial water supply function to help meet capital costs of those water supply systems.

The Commission Plan contains recommendations that address Indian water rights and considerations to Indian Tribes for lands lost to the Pick-Sloan Missouri Basin Program. These recommendations include irrigation of 17,580 acres on the Fort Berthold and Standing Rock Indian Reservations. The Commission also recommends that the Secretary of the Interior establish a five-member commission to assess and report on other possible steps necessary to complete indemnification of Indian communities of North Dakota that were disrupted by construction of Pick-Sloan Missouri Basin Program dams and reservoirs. The Commission considers these actions necessary to the implementation of its Plan and to identify the need, if any, for further measures.

The Commission also makes recommendations to the Secretary of the Interior concerning the NEPA (National Environmental Policy Act) compliance by the establishment of a NEPA Task Force to assess any element of the plan not covered adequately under an earlier environmental compliance process. Moreover, the Commission recommends that the Secretary of the Interior submit legislation by February 15, 1985, or as soon as practicable, to assure authority to implement any part of the Commission Plan which is determined to be beyond current authorization. If such legislation is not signed into law by the *sine die* adjournment of the 99th Congress, the Commission recommends that its plan be withdrawn and the 1965 Initial Stage of the Garrison Diversion Unit be reinstated except for any features of the Commission Plan which Congress previously authorized.

Finally, the Commission Plan contains additional recommendations that concern monitoring streamflow and maintaining water quality in the lower James River; a ground-water recharge study near Oakes, North Dakota; a baseline study of biota in the Hudson Bay drainage of North Dakota; and other issues specified in Public Law 98-360.

SYNOPSIS OF THE GARRISON DIVERSION UNIT COMMISSION PLAN

Features of the Commission Plan are indicated on the foldout map at the end of the report, and the following is a brief description of the Commission Plan. More detailed description and discussion can be found in Appendix D, which is hereby incorporated as a part of the Commission's Final Report.

Synopsis

The plan would:

- Provide municipal, rural, and industrial water service to as many as 130 towns and rural areas.
- Make Missouri River water available to irrigate 130,940 acres of North Dakota land.
- Treat municipal, rural, and industrial water delivery into the Hudson Bay drainage to avoid biota transfer to Canada.
- Include measures for mitigation and enhancement of wetlands and recreation.

Municipal and Industrial Service

- Provide systems for treated Missouri River or ground water by closed pipelines and open channels, with some local water treatment facilities.
- Serve a population of up to 376,000 people in 130 towns and rural areas throughout the State of North Dakota to correct water quality/quantity problems. Includes service to the cities of Minot, Grand Forks, and Fargo.
- Provide capital repayment assistance to lower average monthly family cost to $10 or to the operation and maintenance costs of the system, whichever is greater.

Irrigation Areas

Acres - 113,360 in James River drainage and 17,580 on Fort Berthold and Standing Rock Indian Reservations. Total irrigated acres - 130,940.

Area	Irrigation Acres	Indian Lands	
Turtle Lake	13,700	Lucky Mound	7,700
McClusky Canal	4,000	Upper Six Mile Creek	7,500
Lincoln Valley	6,515		
Harvey Pumping	2,000	Fort Yates*	2,380
New Rockford Canal	1,200		
New Rockford	20,935		17,580
New Rockford Extension	32,000		
LaMoure	13,350		
West Oakes (includes West Oakes Test Area)	19,660		
	113,360		

* To be implemented if requested by the Standing Rock Sioux Tribe.

Wildlife Programs

Mitigation of wildlife habitat losses from the project will be on the basis of acre-for-acre replacement. Project-related wildlife enhancement and recreation will be included.

Project Features

Lake Sakakawea
Snake Creek Pumping Plant
Lake Audubon
McClusky Canal
Sykeston Canal at 1,600 cubic feet per second
New Rockford Canal at 1,600 cubic feet per second
James River Feeder Canal at 1,600 cubic feet per second
Robinson Coulee/James River Diversion
James River Channel Improvements
Phase I of Glover Reservoir
Oakes Pumping Plant and Canal

Cost Summary (Estimates)

Remaining costs of supply works and irrigation facilities	$ 460,219,000
Municipal, rural, and industrial water systems	401,200,000
Fish and wildlife	34,675,000
Flood control	3,049,000
Recreation	6,850,000
TOTAL remaining capital cost	$ 905,993,000
Sunk costs of supply works	$ 213,370,000
TOTAL capital cost	$1,119,363,000

Of the $401,200,000 cost for municipal, rural, and industrial water systems, $40,500,000 is to be considered non-reimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909.

Of the $213,370,000 sunk costs, $35,920,000 are considered to be abandoned and not reimbursable. These costs reflect project features which will not be used in the Commission Plan.

Project operation and maintenance costs are estimated to be approximately $15,415,000 per year. Of this, $1,340,000 is to be considered non-reimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909.

CONCLUSIONS AND RECOMMENDATIONS

This section contains conclusions and recommendations of the Commission with regard to the contemporary water needs of the State of North Dakota as required pursuant to Section 207 (c)(3) of Public Law 98-360. Public Law 98-360 is found in Appendix A of this report. The details of the Commission Plan are found in Appendix D. A comparison of the Commission Plan to the 1965 Authorized Plan is in Appendix E, and a response to provisions of Public Law 98-360 is in Appendix F.

Federal Obligation to North Dakota. - Public Law 98-360, Section 207 (c)(2)(A)

The Commission affirms that there exists an obligation to the State of North Dakota for its contribution to the Pick-Sloan Missouri Basin Program which can be satisfied, in part, by Federal funding and implementation of the Commission Plan. The Commission recommends that its plan described in Appendix D, which is incorporated as a part of this recommendation, be implemented in place of the plans set out by the Bureau of Reclamation and described as the 250,000-Acre Initial Stage of the Garrison Diversion Unit, as authorized in 1965 or the original project authorization in 1944.

Commission recommendations do not preclude possible future development of other features supplemental to the Commission Plan. Lonetree Reservoir remains an authorized feature of the Commission Plan, but completion of its construction is deferred pending a determination of need by the Secretary of the Interior and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought.

The provisions of Reclamation law are invoked in satisfying functions of the Commission Plan unless otherwise noted herein. The originally authorized 3-1/8 percent discount rate will be used for all project purposes including repayment by water users of municipal, rural, and industrial water systems. Costs of construction, operation, maintenance, and replacement of a treatment plant for releases to the Sheyenne River are recommended to be non-reimbursable.

Project Implementation. - Public Law 98-360, Section 207 (c)(2)(G)

The Commission recommends that the Secretary of the Interior proceed immediately to construct those portions of the Commission Plan that are a part of the 1965 authorized Initial Stage. These portions of the plan are described further in recommendations regarding National Environmental Policy Act compliance and the section in Appendix D on Project Implementation.

The Commission also recommends that the Secretary propose enabling legislation to Congress by February 15, 1985, or as soon as practicable, to assure authority to implement any part of the Commission Plan which is determined to be beyond current authorization. If, by the *sine die* adjournment of the 99th Congress, legislation authorizing the Secretary to implement the Commission Plan has not been enacted into law, the Commission recommends that the Initial Stage Garrison Diversion Unit be carried forward and all recommendations of the Commission be dismissed except features of the Commission Plan which were previously authorized by Congress.

The Commission also recommends that the Secretary of the Interior proceed immediately with advance planning actions leading to preconstruction reports, NEPA compliance, final designs, and prompt implementation of the remaining features of the Commission Plan, in close coordination with the State of North Dakota.

Wildlife Habitat Impacts and Mitigation Procedures.- Public Law 98-360, Section 207 (c)(2)(J)

The Commission recommends that mitigation for project implementation losses be accomplished on an acre-for-acre basis, based on ecological equivalency and guided by a mitigation process clearly defined in the Commission Plan. Implementation of the project mitigation strategy will be the responsibility of the implementing bureau or agency, in consultation with the Federal Advisory Council to be established as described below.

Mitigation for impacts to National Wildlife Refuge System and the North Dakota Game and Fish Department lands acquired, in part, with Federal monies would be implemented in accordance with the Fish and Wildlife Coordination Act, National Wildlife Refuge System Administrative Act of 1966 (16 U.S.C. 688dd), and Federal Aid to Wildlife Act (16 U.S.C. 699i), their respective regulations (50 CFR 29 and 80), and other appropriate legislative mandates.

The Commission recommends the establishment of a Federal Advisory Council to provide continuing oversight, coordination, and management of wildlife programs associated with the Commission Plan. The 10-member council will be composed of (a) three residents of the State of North Dakota and three residents of other states, all having extensive professional experience in waterfowl and wetlands management; (b) the Commissioner of the North Dakota Department of Agriculture, (c) the Commissioner of the North Dakota Game and Fish Department; (d) the Regional Director of the Bureau of Reclamation; and (e) the Regional Director of the USFWS (U.S. Fish and Wildlife Service). The Regional Director of USFWS will serve as chairman and the Designated Federal Representative. The Advisory Council will review the wildlife program and annually make recommendations for any needed revisions for consideration by the Secretary of the Interior, the Governor of North Dakota, and the managing agencies. On a case-by-case basis, the Council will make recommendations as to whether the Secretary of the Interior's eminent domain authority should be used for implementation of the wildlife program.

Municipal, Rural, and Industrial Water Delivery Systems. - Public Law 98-360, Section 207 (c)(2)(D)

The Commission recommends establishment of MR&I (municipal, rural, and industrial) systems for treatment and delivery of quality water to approximately 130 communities in North Dakota. Pick-Sloan Missouri Basin Program preference power, which has been previously reserved for irrigation pumping purposes, is recommended to be made available for operation of these systems.

A municipal and industrial water treatment plant with a capacity of 100 cubic feet per second is recommended to provide filtration and disinfection of water releases to the Sheyenne River for use in the Fargo and Grand Forks areas in accordance with the results of Canadian consultation. It is recommended that the costs of construction, operation, maintenance, and replacement of this feature be considered non-reimbursable as the investment is being made solely for the purpose of maintaining good relations between the United States and Canada.

The configuration and character of the municipal, rural, and industrial water systems and the location and character of facilities to treat water supplies shall be determined through a planning process of the bureau or agency that will implement these recommendations. Whether by pipeline, open channel conveyance or some other approach, and whether from Missouri River water, ground water, or a combination, an important consideration of system design shall be cost effectiveness. The Commission's initial determination of an approximate configuration of the systems is described in Appendix D (see pg. 33). In implementing the municipal, rural, and industrial water systems, it is recommended that the Secretary consider strategies similar to those used for the WEB Pipeline Project in South Dakota where local entities assume project leadership with appropriate oversight by the Secretary or his designee.

The configuration of the systems shall be based on the ability and willingness of water users to assume financial responsibility. Appropriate investigations shall be made to assure early implementation at minimum cost. It is recommended that capital cost repayment assistance be provided, if necessary, to lower the additional monthly family cost to $10 or to the operation and maintenance costs of the system, whichever is greater. The repayment assistance shall be provided without interest by reassigning a portion of the irrigation repayment assistance from the Initial Stage of the Garrison Diversion Unit. The Commission believes that the additional $10 per month family cost represents a reasonable estimate of municipal, rural, and industrial water users ability to pay in 1984 dollars. However, the Commission recommends that the Secretary review that estimate every 5 years and provide provisions in contracts to make appropriate adjustments.

For those municipal and industrial systems that will deliver Missouri River water to communities in the Hudson Bay drainage, it is recommended that the United States consult with the Government of Canada on plans and methodologies before implementation.

The State of North Dakota has specifically requested that the Southwest Pipeline Project not be included in the Commission Plan, and therefore, that project is excluded from the Commission's recommendations.

Irrigation Deliveries. - Public Law 98-360, Section 207 (c)(2)(B,F,G)

The Commission recommends that the Garrison Diversion Unit be configured to provide irrigation service to 130,940 acres in the Missouri River and James River drainages of North Dakota as described in Appendix D (see pg. 32). The Commission acknowledges that, due to the nature of its recommendations, some discretion must be left to the Secretary in implementing the Commission Plan. However, the Commission expects that there will be no modification of its recommendations on configuration of principal supply works, deferral of irrigation in the Hudson Bay drainage, and the total area to be irrigated.

The Lincoln Valley area is located in the upper Sheyenne River Valley. It is recommended that drainage modifications be provided to treat return flows, or to collect and pump return flows to the principal supply works or another suitable Missouri Basin disposal point. Alternatively, it is recommended that an equivalant acreage in the West Oakes Extension area be substituted should no cost-effective measures to manage Lincoln Valley return flows be identified.

Principal Proposed Reservoirs. - Public Law 98-360, Section 207 (c)(2)(G)

The Commission recommends that Lonetree Dam not be completed at this time and that the Sykeston Canal be constructed as a functional replacement. While the Lonetree Dam and Reservoir facility remains an authorized feature of the Commission Plan, it is recommended that construction be deferred pending a determination by the Secretary of the Interior consisting of a demonstration of need and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought.

The Commission recommends that land acquisition be completed at the Lonetree Reservoir site, with the area to be retained in United States ownership and managed for wildlife purposes by the State in accordance with the Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq., and credited as mitigation for habitat losses incurred elsewhere. The Commission recommends that Sheyenne lake National Wildlife Refuge be replaced pursuant to the National Wildlife Refuge System Administration Act. The Bureau of Reclamation shall enter into an appropriate management arrangement with the State relative to the lands of the Lonetree Reservoir site.

The Commission recommends that Kraft Slough be recognized as a unique area with wildlife resource values that transcend all other potential uses. No project features of any kind, other than those needed for wildlife management purposes, should be situated there.

It is recommended that the Secretary initiate efforts to purchase Kraft Slough in its entirety, to be managed in perpetuity for its wildlife values by the appropriate Federal or State agency. These wildlife values shall be credited as mitigation for habitat losses incurred elsewhere.

The Commission recommends that the first phase (17,000 acre-feet) of the Glover Reservoir be included as a feature of the plan in lieu of Taayer Reservoir for reregulation of flows along the lower James River. The Commission recommends that the Bureau of Reclamation enter into a memorandum of agreement with the State of North Dakota for State construction of the first phase of Glover Reservoir using Garrison Diversion Unit appropriations.

Recreation. - Public Law 98-360, Section 207 (c)(2)(F)

The Commission recommends that development of recreation features be completed concurrent with other project construction. Recommended recreation features include 3 State Parks developments, 11 county and city recreation areas, and 3 trails, as included in the Commission Plan (Appendix D) and referenced in the State of North Dakota Plan for Development of the Garrison Diversion Unit, September 1984, with appropriate adjustment to reflect the deferral of Lonetree Reservoir.

Water Quality. - Public Law 98-360, Section 207 (c)(2)(D)

The Commission recommends that Best Management Practices be included as a requirement in contracts executed for repayment and water service, and that these practices be monitored in compliance with State law on all irrigated areas that might contribute to return flows.

Further, the Commission recommends that streamflow and quality in the James River be monitored, and that such volumes of water from project features be provided as are needed to maintain the salinity concentrations of water at the South Dakota border at a level no higher than the pre-project historical monthly average. Such releases will be made by the operating agency in consultation with the State.

The Commission recommends that the current Lake Audubon and McClusky Canal water freshening program be reevaluated, including an examination of alternative approaches to reduce salinity levels prior to start of project operation. In particular, the feasibility of reverse draining Lake Audubon into Lake Sakakawea and pumping back McClusky Canal waters into Painted Woods Creek shall be evaluated. It is recommended that the Secretary direct the Bureau of Reclamation to develop a program to freshen the Lake Audubon/McClusky Canal system to the extent that is economically and technically feasible.

International Concerns and Continuing Consultations with Canada (1909 Boundary Waters Treaty). - Public Law 98-360, Section 207 (c)(2)(K)

The Commission recommends that the terms and conditions of the Boundary Waters Treaty be honored. The concerns of the Provincial and National Governments of Manitoba and Canada are appreciated and must be recognized. Missouri River waters conveyed into the Hudson Bay drainage as part of the Commission Plan shall be treated in a manner determined acceptable pursuant to United States-Canadian consultations. It is recommended that costs of features or modifications to features of the Commission Plan attributable to meeting requirements of the Boundary Waters Treaty of 1909 be considered non-reimbursable.

The Commission recommends a one-time baseline survey of species and pathogens in waters of the Hudson Bay drainage. This survey should be the responsibility of an independent international organization not affiliated with Governments of the United States or Canada. The scientific team should include qualified technical specialists from the State of North Dakota, the Province of Manitoba, the United States, and Canada, and should be funded as part of the Commission Plan.

The Commission recommends that a mechanism be developed and initiated at the earliest practicable time for appropriate parties to negotiate the issue of irrigation water deliveries to Hudson Bay drainage areas of North Dakota. It is the consensus of this Commission that U.S. residents of the Souris and Red River drainages should not be constrained in perpetuity from pursuing the possible benefits of irrigation development with Missouri River water. When Treaty conditions can be satisfied, such developments may be pursued. So important is the issue, and so necessary is the development and preservation of a favorable climate for discussion, that the Commission recommends the Secretary of the Interior encourage the parties to meet at specified 6-month intervals for this purpose until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water to the affected area(s).

In addition, the Commission recommends that the Secretary of the Interior initiate discussions with the Department of State to pursue negotiation of modifications to the 1909 Boundary Waters Treaty to more precisely define the word "pollute" for Treaty purposes and make other changes of a mutually appropriate nature.

Bi-National Resource Development Program. - Public Law 98-360, Section 207 (c)(2)(K)

The Commission recommends that the Secretary of the Interior define a program whereby appropriate authorities of the United States and Canada, in consultation with representatives of the Province of Manitoba and the State of North Dakota, begin during 1985 to explore establishment of a Bi-National Resource Development Program.

Indian Resources. - Public Law 98-360, Section 207 (c)(2)(H)

The Commission recommends that 15,200 acres of Indian lands of the Lucky Mound and Upper Six Mile Creek irrigation areas of the Fort Berthold Reservation be developed to provide an agricultural economic base. To minimize risk associated with irrigating the deep glacial till soils located on the Fort Berthold Indian Reservation, the Commission recommends delaying implementation of the second area until the first is determined by the implementing agency to be sucessful.

The Commission recommends that, should the Standing Rock Sioux Tribe request, irrigation assistance should also be provided for the 2,380-acre Fort Yates irrigation area on the Standing Rock Reservation. The Commission recommends that irrigation of lands on the Fort Totten Reservation with Missouri River water not be undertaken until potential problems with biota transfer into Canadian waters are resolved. Municipal water supply needs of the Fort Berthold, Standing Rock, and Fort Totten Reservations shall be satisfied. It is recommended that facilities for Indian reservations which are a part of the Commission Plan be implemented with Bureau of Reclamation appropriations, using pumping power from the Pick-Sloan Missouri Basin Program, with repayment made pursuant to the Leavitt Act.

The Commission recommends that the Secretary intercede with the Army Corps of Engineers to seek access rights for the Tribes to develop recreation opportunities along the shorelines of Lakes Sakakawea and Oahe.

The Commission recommends that the Secretary promptly encourage initiation of Congressional oversight hearings on Indian water rights in the Missouri River Basin.

The Commission recommends that the Secretary provide assurances to the Three Affiliated Tribes of Fort Berthold (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux that all previous legally binding commitments and/or treaties of the United States made in conjunction with lands taken and the values thereof for the creation of Lakes Oahe and Sakakawea will be fulfilled.

The Commission recommends that no later than January 31, 1985, the Secretary appoint a five-member commission of which no fewer than two members are representatives of Indian Tribes. The Commission will report to the Secretary no later than October 1, 1985, regarding the following items on the Fort Berthold and Standing Rock Reservations:

- Full potential for irrigation,
- Financial assistance for on-farm development costs,
- Replacement of infrastructures lost by the creation of Garrison Dam and Lake Sakakawea and Oahe Dam and Lake Oahe,
- Preferential rights to Pick-Sloan Missouri Basin power,
- Development of shoreline recreation potential,
- Return of excess lands,
- Additional financial compensation,
- Protection of reserved water rights,
- Other items the five-member Commission may deem appropriate,
- Funding of all items above from the Garrison Diversion Unit funds, if authorized.

The Commission recommends that the desires of the Devils Lake Sioux for the freshening of Devils Lake be given due regard, as set forth in its recommendation concerning Devils Lake Management.

Abandoned Features. - Public Law 98-360 Section 207 (c)(2)(C,G)

The Commission recommends that any investment related to full design capacities of features that are not employed in the Commission Plan shall be absorbed as a reasonable cost of satisfying the Federal obligation to the State of North Dakota and therefore will be non-reimbursable.

If the full capacities of those project features are used in some future expansion of the project, those non-reimbursable costs should be reassigned to purposes for which the features are used.

The Commission recommends that the existing Lonetree Dam foundation and other works at that site be preserved intact to assure their possible use at some future time.

Ground-water Resources. - Public Law 98-360, Section 207 (c)(2)(E)

The Commission recommends that the viable concepts of satellite well fields and the West Oakes aquifer recharge concept be investigated, commencing in 1985. When compared to other features of the Commission Plan, the most cost-effective systems should be implemented. The Commission recommends that the progress of these investigations be reported at least twice annually to the Secretary of the Interior and the Governor of North Dakota until such time as these concepts are implemented or otherwise abandoned.

Devils Lake Management. - Public Law 98-360, Section 207 (c)(2)(J,K)

The Commission recommends that construction of an outlet from the Devils Lake system to the Sheyenne River and future funding for an inlet to the Devils Lake system be considered. Initiation of either feature shall be based on the outcome of current Corps of Engineers studies, NEPA compliance, permitting reviews, and satisfactory completion of consultations with Canada.

James River Conveyance System. - Public Law 98-360, Section 207 (c)(2)(G)

The Commission recommends that the James River channel be employed as the conveyance facility to supply irrigation water to the LaMoure and Oakes irrigation areas.

The Commission further recommends that those channel changes and mitigation measures be implemented which are determined necessary to use the James River as the principal southern conveyance system. Bypass canals and other structural and/or management measures to reduce return flow impacts to Arrowwood and Sand Lake Refuges shall be investigated, and appropriate measures implemented to lessen refuge impacts.

Equity Among Counties. - Public Law 98-360, Section 207 (c)(2)(H)

The Commission recommends that the Secretary urge the State to determine an appropriate reallocation of funding responsibilities among its citizens through a special committee of appropriate composition. Twenty-five of North Dakota's 53 counties comprise the Garrison Diversion Conservancy District, and residents there have been assessed ad valorem taxes annually since 1956 to advance the project. The levy has been mimimal and was intended to reflect, in part, the general benefit from the project that would accrue to the citizens of the counties. The beneficiaries of the Commission Plan are different from those of the 1965 Initial Stage, and modification to the Conservancy District may be in order. The State of North Dakota should review the organizational structure of its political subunits that exist in North Dakota for implementating the Garrison Diversion Unit in order to make equitable adjustments consistent with implementation of the Commission Plan.

Environmental Impacts and Compliance Procedures. - Public Law 98-360, Section 207 (c)(2)(J)

The Commission recommends that National Environmental Policy Act compliance completed for project features common to the authorized project and to the Commission Plan be considered adequate, assuming no supplementation is required and implementation of those common features proceed immediately. The project features in this category include:

Snake Creek Pumping Plant
McClusky Canal
New Rockford Canal
James River Feeder Canal
Jamestown Dam and Reservoir
New Rockford Irrigation Area
Robinson Coulee/James River Diversion
LaMoure Irrigation Area
West Oakes Irrigation Area
West Oakes Pumping Plant and Canal

It is recommended that wildlife mitigation for the above features continue to be implemented during further project NEPA compliance.

It is recommended that programmatic NEPA compliance for the Commission Plan be concluded within 18 months of Congressional action confirming the Secretary's authority to implement any part of the Commission Plan which is determined to be beyond current authorization. Separate NEPA compliance documents may be prepared for Indian features or municipal, rural, and industrial water delivery systems which do not use the Garrison Diversion Unit principal supply works.

For features of the Commission Plan not previously considered under NEPA, or features which have changed significantly since previous NEPA compliance, site specific NEPA compliance should be completed prior to initiating construction of those features.

The Commission recommends that the Secretary establish an Environmental Impact Task Force with the Bureau of Reclamation as lead agency and the State of North Dakota, Buréau of Indian Affairs, Fish and Wildlife Service, Environmental Protection Agency, Indian Tribes, and other appropriate entities as cooperating agencies.

Public Law 98-360
98th Congress

An Act

Making appropriations for energy and water development for the fiscal year ending September 30, 1985, and for other purposes.

July 16, 1984
[H.R. 5653]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending September 30, 1985, for energy and water development, and for other purposes, namely:

Garrison Diversion Unit, N. Dak.

SEC. 207. (a) It is the sense of Congress that—

(1) the Garrison Diversion Unit was authorized by Congress and reflects the entitlement of the State of North Dakota to a federally funded water development program as compensation for North Dakota's contributions to the Pick-Sloan Missouri Basin program;

(2) there is a need to put to beneficial use water from the Missouri River within the State of North Dakota;

(3) there are municipal and industrial water resource problems in North Dakota that are presently unmet;

(4) there are irrigation and agricultural water needs in areas which cannot be met by the Garrison Diversion Unit as presently authorized;

(5) the Garrison Diversion Unit, as presently authorized, raises significant issues of economic, environmental, and international concern;

(6) the water needs of the State of North Dakota should be resolved by contemporary water development alternatives; and

(7) a Secretarial commission should be established to examine the water needs of North Dakota and propose development alternatives which will lead to the early resolution of the problems identified.

(b) No funds appropriated under this title for the Garrison Diversion Unit, Pick-Sloan Missouri Basin program, shall be expended or committed for expenditure on construction contracts prior to December 31, 1984. Notwithstanding the preceding sentence, funds appropriated may be expended or committed for expenditure for the work associated with the commission established by this section. Funds may be expended or committed for expenditure after such date for construction of the Garrison Diversion Unit—

(1) in accordance with the recommendations of the Secretarial commission established under subsection (c); or

(2) if the commission fails to make such recommendations, as presently authorized.

Water commission.

(c)(1) The Secretary of the Interior shall, within thirty days after the date of enactment of this section, appoint a commission, composed of 12 individuals, to review the contemporary water development needs of the State of North Dakota and propose modifications to the Garrison Diversion Unit consistent with the existing authorization. The Secretary shall designate one member who shall serve as chairman of the commission who shall set the dates of hearings, meetings, and other official commission functions in carrying out the purposes of this section. The commission, in developing its recommendations, shall hold no fewer than three public hearings, at least two of which shall be in the State of North Dakota. Any recommendations of the commission shall be agreed to by at least 8 members. The commission shall cease to exist on December 31, 1984.

(2) The commission is directed to examine, review, evaluate, and make recommendations with regard to the contemporary water development needs of the State of North Dakota, taking into consideration—

(A) the costs and benefits incurred and opportunities foregone by the State of North Dakota between 1944 and 1984 as a result of the establishment and implementation of the Pick-Sloan Missouri Basin program;

(B) the need and potential for North Dakota to put to beneficial use within the State water from the Missouri River;

(C) the need for construction of additional facilities to put to beneficial use water from the Missouri River;

(D) the municipal and industrial water needs and development potential within the State of North Dakota, including such matters as—

(i) quality of water supply,

(ii) the ability of existing systems to meet present and future demand,

(iii) related groundwater problems,

(iv) water treatment,

(v) water delivery by pipeline, and

(vi) instream flow needs;

(E) the possible use of groundwater recharge for municipal and industrial uses, as well as irrigation;

(F) the current North Dakota water plan, including proposed projects, to determine if elements of the plan (such as the southwest pipeline project) should be recommended for Federal funding;

(G) whether or not the Garrison Diversion Unit can be redesigned and reformulated;

(H) the institutional and tax equity issues in the State of North Dakota as they relate to the authorized project and alternative water development proposals;

(I) the fiscal and economic impacts of the Garrison Diversion Unit, as compared with alternative proposals for irrigation and municipal and industrial watersupply;

(J) the environmental impacts of the water development alternatives mentioned in this section, compared with those of the Garrison Diversion Unit, including impacts on wildlife refuges, wetlands, wildlife habitat, waterfowl, and other environmental impacts as well as make recommendations to reduce and minimize those impacts; and

(K) the international impactsof the water development alternatives described in this section compared with those of the Garrison Diversion Unit and make recommendations to reduce and minimize those impacts.

All recommendations of the commission shall retain the originally authorized discount rate.

(3) The commission shall submit to the Secretary of the Interior, the chairmen of the Senate Committees on Energy and Natural Resources and Appropriations, and the House Committees on Interior and Insular Affairs and Appropriations, no later than December 31, 1984, a report which contains the conclusions and recommendations of the commission with regard to the items described in paragraph (2).

Report.

(d) The Secretary of the Interior is authorized and directed to implement the recommendations of the commission report consistent with existing authority.

(e) Nothing in this section shall affect any litigation initiated prior to June 1, 1984.

CHARTER
GARRISON DIVERSION UNIT COMMISSION

1. Official designation: Garrison Diversion Unit Commission

2. Purpose, objectives and scope of activities: Congress has directed the Commission to examine, review, evaluate, and make recommendations with regard to the contemporary water development needs of the State of North Dakota, including 11 specific areas of congressional concern set forth in section 207(c)(2)(A)-(K) of the 1985 Energy and Water Development Act, P.L. 98-360.

3. Official to whom the Commission reports: The Secretary of the Interior.

4. Agency responsible for providing support: Bureau of Reclamation, Department of the Interior.

5. Estimated operating costs and person-years of staff support: The estimated operating budget is $1.5 million, including approximately 25 person-years of administrative support.

6. Estimated number and frequency of meetings: The Commission will hold at least 3 public hearings, at least two of which will be held in the State of North Dakota. Additional meetings, including Commission business meetings, will be held as necessary.

7. Termination date: The Commission will terminate on December 31, 1984.

8. Commission membership: The Commission will have 12 members, one of whom the Secretary will designate as Chairman. Commission members will be appointed by the Secretary within 30 days of the enactment of P.L. 98-360 and will represent State and regional interests, agriculture, other water users, the environmental and conservation community and the general public. The Chairman will set the dates of hearings and meetings of the Commission. Members of the Commission will serve at the pleasure of the Secretary.

9. Authority for the Commission: The Commission was created by section 207(C)(1) of P.L. 98-360.

10. Compensation and Expenses of members: Commission members will receive no compensation for their services on the Commission, but may be allowed necessary travel expenses as authorized by 5 U.S.C. § 5703.

Ann Dore McLaughlin
ting Secretary of the Interior

Date signed: 8/3/84

Date charter filed: 08/08/84

Garrison Diversion Unit Commission Members

Chairman, David C. Treen, former Governor of Louisiana, lawyer, and former four-term member of the House of Representatives.

Henry Bellmon of Oklahoma. A farmer since 1946, he served as Oklahoma's Governor (1962-66) and United States Senator (1969-81) and has been a member of the Migratory Bird Conservation Commission.

William B. Ingersoll, Washington, D.C., a senior partner in the law firm of Ingersoll and Block. He is a founder and general counsel of the American Land Development Association.

Norman (Ike) Livermore, San Rafael, California, a member of the California Fish and Game Commission. A businessman and lumberman, he served as California's Secretary for Resources from 1967 to 1975 under then-Governor Ronald Reagan. He served as a director of the National Audubon Society and was a member of the advisory councils of the Sierra Club Foundation and the Save the Redwoods League.

Dr. J. Gordon Milliken of Colorado, senior research economist and associate division head of the Denver Research Institute, University of Denver. Dr. Milliken is an expert on water resources economics.

Patrick Francis Noonan, Washington, D.C., business executive, is chairman of the advisory committee of the American Farmland Trust and head of the Conservation Resources Group, Inc. He also is former president of the Nature Conservancy.

J. W. (Pat) O'Meara, Washington, D.C., Executive Vice President of the National Water Resources Association. A native of Nebraska, Mr. O'Meara served for 20 years with the Department of the Interior.

John Paulson, Fargo, North Dakota, retired editor of the Fargo Forum, largest newspaper in the State. He is well versed on all sides of the Garrison issue.

Dr. James G. Teer of Granger, Texas, a member of the board of directors of the National Audubon Society and Director of the Welder Wildlife Foundation of Sinton, Texas.

Henry C. Wessman, Professor and Chairman, Department of Physical Therapy, University of North Dakota School of Medicine; and Mayor, City of Grand Forks, North Dakota.

Dr. John Whitaker, Maryland, served as Deputy Assistant to the President for Domestic Affairs under President Richard M. Nixon and was Under Secretary of the Interior from 1973 to 1975.

Ann Zorn, Las Vegas, Nevada, former member of the Nevada Environmental Commission, is active in environmental issues in that State. She is a member of the League of Women Voters.

Technical Staff

Name	Agency	GDU Staff Role
Michael J. Clinton	Bureau of Reclamation	Director, Technical Staff
Robert Brogden	Bishop, Brogden, and Rumph	Ground Water
Vern S. Cooper	Private Consultant	North Dakota Liaison
Leo Eisel, Ph.D.	Wright Water Engineers	Surface Water Delivery
Eldon Johns	Bureau of Reclamation	Consumptive Water Use
John Jones	Bureau of Reclamation	Land Classification and Drainage
Alan P. Kleinman, Ph.D.	Great Western Research Inc.	Economics
Lawrence Raymond, Ph.D.	International Bio-Resources, Inc.	Aquatic Biology
Gene Reetz Ph.D.	Environmental Protection Agency	Water Quality
Francis Schwindt	North Dakota State Health Department	Municipal and Industrial Water
Earl Stegman, Ph.D	North Dakota State University	Agriculture-Irrigation
Fred E. Wright	Wildlife Biologist	Wildlife and Wetlands
Karen Bechtold	Bureau of Reclamation	Secretary
Linda Dawes	Bureau of Reclamation	Secretary
Bill DeOreo	Wright Water Engineers	Surface Water Delivery
Rheda Dodd	Bureau of Reclamation	Administrative Assistant
Patty Gillespie	Bureau of Reclamation	Reports Writer
Jack Grimsley	Bureau of Reclamation	Conveyance Systems Design
Jim Harpster	National Park Service	Media Relations Officer
Kathy House	Bureau of Reclamation	Media Relations Assistant
Nancy Lankford	Bureau of Reclamation	Secretary
Roy Linhardt	Bureau of Reclamation	Conveyance Systems Design
Kim Mills	Wright Water Engineers	Surface Water Delivery
Jim Morrisette	Bureau of Reclamation	Design and Construction
Arne Omholt	Bureau of Reclamation	Cost Estimates
Sigurd Titmus	Great Western Research, Inc.	Agricultural Economics
Wes Wilson	Environmental Protection Agency	Water Quality
Linda Woodworth	Bureau of Reclamation	Media Relations/ Reports

Administrative Staff

Name	Agency	GDU Staff Role
James Wiley	Bureau of Reclamation	Director
Janice Couplin	Bureau of Reclamation	Administrative Assistant
Rachel Dobbs	Bureau of Reclamation	Secretary
Susan Hall	Bureau of Mines	Public Information/ Reports
Steve Hoetzer	Garrison Conservancy District	Engineering
Steve Lanich	United States Senate Staff	Water Quality
Bob Little	Bureau of Reclamation	Head Secretary
Marc Messing	Eliasanne Research	State Compensation, institutional equity, Economics
Dick Paulson	U.S. Geological Survey	Hydrology/Graphics
Linda Sanders	Bureau of Reclamation	Secretary
Joe Scott	U.S. Fish & Wildlife Service	Wildlife
Steve Specht	Bureau of Reclamation	Environmental

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APPENDIX D

COMMISSION PLAN

Introduction

The Garrison Diversion Unit Commission was appointed by the Secretary of the Interior on August 11, 1984, to review the controversy surrounding the authorized Initial Stage of the Garrison Diversion Unit, and to make recommendations with regard to contemporary water needs of the State of North Dakota.

The Garrison Diversion Unit was authorized as part of the Pick-Sloan Missouri Basin Program in the Flood Control Act of 1944. In 1965, Congress authorized construction of the Initial Stage of the Unit to irrigate 250,000 acres and to provide other benefits including municipal and industrial water delivery, recreation, fish and wildlife mitigation and enhancement, and flood control. Opposition to the Initial Stage, however, delayed project development.

Issues to be addressed by the Commission were identified in Public Law 98-360 (Appendix A of this report) and through a number of hearings and meetings. The Commission held a public hearing in Bismarck, North Dakota, on September 10-11, 1984, to obtain information from State officials and citizens concerning contemporary water needs of North Dakota. On October 17, 1984, the Commission held a public meeting to review issues and alternatives which provided the basis for an Interim Staff Report on Issues and Alternatives, released on November 7, 1984.

A second public hearing was held in Fargo, North Dakota, on November 16 and 17, to solicit comment from the public concerning the November 7 report. In a November 18 public business meeting, the Commission directed its technical staff to examine further three alternatives which were subsequently discussed in a public business meeting in Washington, D.C., on November 28. These alternatives were described in a Preliminary Final Report, dated December 5, 1984.

At its December 13 public hearing in Minot, North Dakota, the Commission heard testimony on the Preliminary Final Report and on alternative plans. The various alternatives were subsequently considered during a final public business meeting on December 14, 1985. At that meeting, the Commission voted on a plan to reformulate the Garrison Diversion Unit and to fund selected irrigation developments on Indian reservations. The Commission Plan described in this report is the recommendation of the Commission to the Secretary of the Interior and Congress. The official recorded vote of the Commission was 11 to 1 in favor of the proposed recommendations.

Project Features

Project features of the Commission Plan which remain in whole or in part from the 1965 Initial Stage of the Garrison Diversion Unit Plan include:

- Lake Sakakawea (as constructed)
- Snake Creek Pumping Plant (as constructed)
- Lake Audubon (as constructed)
- McClusky Canal (as constructed but with no fish screen)
- Sykeston Canal (1,600 cfs)
- New Rockford Canal (1,600 cfs)
- James River Feeder Canal (1,600 cfs)
- Robinson Coulee/James River Diversion
- Jamestown Dam and Reservoir (as constructed)
- James River Channelization
- Oakes Pumping Plant and Canal
- Recreation and Fish and Wildlife Features

Of these features, three facilities already constructed are included in the Commission Plan, but would be used at less than design capacities. They are Snake Creek Pumping Plant, Lake Audubon, and the McClusky Canal.

New project features include: an alternative to Taayer Reservoir (Phase I of the Glover site proposed) and pipelines and treatment plants for municipal, rural, and industrial water supplies.

The Sykeston Canal is modified to convey up to 1,600 cubic feet per second of water from the McClusky Canal to the New Rockford Canal. The Commission Plan also includes a study of ground-water recharge for potential irrigation in the Oakes area and of satellite well fields for some municipal, rural, and industrial water supply systems.

Irrigation Features

Irrigation service would be extended to a total of 130,940 acres in nine non-Indian irrigation areas and three irrigation areas on Indian reservations.

Feature	Irrigation Acres	
Non-Indian		
Turtle Lake	13,700	
McClusky Canal	4,000	
Lincoln Valley	6,515	
Harvey Pumping	2,000	
New Rockford Canal	1,200	
New Rockford	20,935	
New Rockford Extension	32,000	
LaMoure	13,350	
West Oakes (includes West Oakes Test Area)	19,660	
Subtotal		1/ 113,360 acres
Indian		
Lucky Mound	7,700	
Upper Six Mile Creek	7,500	
Fort Yates 2/	2,380	
Subtotal		17,580 acres
TOTAL		130,940 acres

1/ Should, for any reason, some lands identified above be found unsuitable for irrigation, an equivalent acreage in the West Oakes Extension area would be substituted.

2/ To be implemented if requested by the Standing Rock Sioux Tribe.

Municipal, Rural, and Industrial Water Features

Provision of water service for up to 376,000 people in 130 North Dakota communities and to rural water users will be accomplished by supplying treated Missouri River water and some locally developed ground water supplies. The systems would use closed pipelines, open channels, and, in some cases, local ground-water treatment facilities to remove iron and manganese.

Operation and maintenance of municipal, rural, and industrial water supply systems could be conducted by contract with a State-wide entity or combination of entities, such as the Garrison Diversion Conservancy District, non-profit rural water user associations, or individual communities.

The contracting entity would be responsible for repayment as well as for the operation and maintenance of treatment plants, pumping plants, and pipeline systems which would provide water from satellite well fields or surface water supplies.

Municipal, Rural, and Industrial Water Supply Systems

System	Population served	Capital cost ($)	Annual O&M cost ($) with P-SMBP Preference Power	Monthly family debt service cost ($) 1/	Monthly Family O&M cost ($) with P-SMBP Preference Power	Total Monthly family cost ($)	Monthly family cost ($) with Financial Assistance	Total capital repayment from user fees ($) 2/	Total capital repayment from power revenues ($) 3/
Fortuna	2,107	9,000,000	80,000	41.06	8.25	49.31	10.00	380,000	8,620,000
New Town	14,155	37,000,000	460,000	25.13	7.06	32.19	10.00	4,330,000	32,670,000
Minot	60,725	104,000,000	4,220,000	16.46	15.11	31.57	15.11	0	104,000,000
Towner	19,241	37,000,000	620,000	18.49	7.00	25.49	10.00	6,000,000	31,000,000
Elk Valley	2,671	16,000,000	150,000	57.59	12.21	69.80	12.21	0	16,000,000
New Rockford	9,763	13,000,000	310,000	12.80	6.90	19.70	10.00	3,150,000	9,850,000
Devils Lake	15,042	4,000,000	480,000	2.55	6.94	9.49	9.49	4,000,000	0
Page	3,855	7,000,000	150,000	17.45	8.46	25.91	10.00	620,000	6,380,000
Harvey	10,779	16,000,000	340,000	14.27	6.86	21.13	10.00	3,520,000	12,480,000
McClusky	4,849	11,000,000	150,000	21.80	6.72	28.52	10.00	1,650,000	9,350,000
Robinson	331	2,000,000	30,000	58.08	19.71	77.79	19.71	0	2,000,000
Jamestown	7,758	17,000,000	250,000	21.06	7.00	28.06	10.00	2,420,000	14,580,000
Linton	13,582	36,000,000	440,000	25.48	7.04	32.52	10.00	4,180,000	31,820,000
Solen	3,275	10,000,000	110,000	29.35	7.30	36.65	10.00	920,000	9,080,000
LaMoure	12,767	20,000,000	420,000	15.05	7.15	22.20	10.00	3,780,000	16,220,000
Oakes	5,238	12,000,000	230,000	22.02	9.55	31.57	10.00	250,000	11,750,000
Tolna	241	900,000	20,000	35.90	18.04	53.94	18.04	0	900,000
Treatment plants	19,223	7,400,000	630,000	3.70	7.12	10.82	10.00	5,760,000	1,640,000
Westhope	741	1,400,000	60,000	18.16	17.61	35.77	17.61	0	1,400,000
Subtotal	206,343	360,700,000	9,150,000	16.80	9.64	26.44	11.54	40,960,000	319,740,000
Sheyenne Release 4/	170,000	40,500,000	1,340,000	0	0	0	0	0	0
TOTAL	376,343	401,200,000	10,490,000	10.25	6.06	16.31	6.33	40,960,000	319,740,000

1/Based on total repayment of capital costs over a 40 year period at 3 1/8% interest.
2/Does not include interest payments which users will pay at 3 1/8% interest.
3/Repayment assistance from power revenues reassigned from irrigation assistance authorized under the 1965 Plan.
4/Non-reimbursable costs.

Capital repayment assistance from power revenues will be provided to lower the additional monthly family cost to $10, or to the operation and maintenance costs of the system, whichever is greater. However, in the event that the total family cost, including capital repayment with interest and operation and maintenance costs, is less than $10, the actual costs would be assessed for repayment. The $10 additional monthly family cost (1984 dollar) reflects the Commission's assessment of ability to pay and should be reviewed every 5 years and adjusted accordingly.

The Secretary of the Interior shall have the discretion to establish water charges to industrial water users using other reasonable criteria. In implementing the municipal, rural, and industrial water systems, it is recommended that the Secretary consider strategies similar to those used for the WEB Pipeline Project in South Dakota where local entities assume project leadership with appropriate oversight by the Secretary or his designee.

Indian Issue Findings

Implementation of the Flood Control Act of 1944 had a significant impact on Indian Tribes in North Dakota. The Commission received evidence that the Federal Government has not provided promised assistance to replace the economic base of the State and Tribes. The Commission acknowledges a need for Congressional oversight hearings on Indian water rights in the Missouri River Basin. Additionally, the Commission recommends under its legislative mandate to consider institutional equity, [in accordance with Public Law 98-360, Section 207 (c)(2)(H)] that assurances be given to both the Three Affiliated Tribes of Fort Berthold Reservation (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux, that all previous legally binding commitments and/or treaties of the United States made in conjunction with lands taken and values thereof for the creation of Lakes Oahe and Sakakawea will be fulfilled.

The recommendation on Indian issues can be found in the Conclusions and Recommendations section of this report.

Economics

Economic analysis of the Commission Plan follows the procedures applied and discussed in the Interim Staff Report on Issues and Alternatives dated November 7. Appendix F of that report, Economics of Agricultural Production, contains the basic assumptions used for Commission technical staff benefit estimates. However, based upon public comment and subsequent review, the staff modified those assumptions to increase the potato production acreage from 1 to 3 percent.

The Commission Plan provides direct benefits to approximately 400 farms. The off-farm capital costs of irrigation systems to serve these farms have been estimated at about $1.5 million per farm. Direct annual benefits are estimated to be $23,597 per year per farm in increased agricultural productivity. Secondary benefits could be estimated based on a multiplier of 1.08, which would imply an additional $25,485 increase in economic activity accruing to the rural and urban communities from each irrigated farm.

Total project costs would be $1,119 million in capital costs and $15.8 million in OM&R costs annually. Of the total capital costs, $854 million would be repaid by power consumers, $44 million by irrigators, $41 million by municipal users, and $16 million would be repaid from other sources. Non-reimbursable costs totalling $164 million include those for abandoned features, flood control, 25 percent of fish and wildlife enhancement costs, $76 million construction, and Indian irrigation development for which repayment may be deferred under the Leavitt Act, and costs associated with protecting the quality of water entering the Hudson Bay drainage pursuant to the Boundary Waters Treaty of 1909.

For additional economics and other information, see the following Profile Sheet.

Commission Plan

Service Benefits and Project Data

M&I: Communities 130 Population 376,343 Families 144,193

Fish and Wildlife: Affected National Wildlife Refuges (#) 5 acres 29,578
Other Wetland Acres 17,309 Upland Acres 20,806 Stream miles 39

Irrigation (acres):	130,940	Basin: Indian	17,580
Avg. farm size	278	(acres) Mo./James ND	113,360
No. of farms	408		
Population	1,633		

Land required (acres):	Private	47,964
	Public	3,006
	Mitigation lands	39,230
	Enhancement lands	43,469

Water requirements (acre-feet/year):
Missouri River 286,801 Groundwater 3,238 Other -

Planning and construction time (years): 11

Benefits and costs ($1,000 - 1984)

	Annual Benefits Direct	Annual Benefits Total	Capital costs	Annualized costs
Irrigation	9,635	20,041	673,589	22,094
M&I	23,633	23,633	401,200	13,143
Fish and Wildlife	2,379	2,379	34,675	1,136
Flood control	513	513	3,049	100
Recreation	1,680	1,680	6,850	225
Oper., Maint., & Repl.	---	---	---	15,855
TOTALS	37,840	48,246	1,119,363	52,553

Economic Indicators (dollars - 1984, except *'s are actual costs incurred)

Sunk costs* 213,370,000 Remaining costs 905,993,000
Abandoned costs* 35,928,000
Irrigation capital cost 1,650,953 per farm 5,414 per acre
Remaining cost 3,514 per acre
On farm development cost per farm 104,668 per acre 377
M&I water annual cost per household 186.44
Benefits/Total costs Direct .76 Total .96
Annual Benefits per farm 23,597 per acre 84.99
Benefits/Remaining costs Direct .88 Total 1.12

Capital Cost Recovery ($1,000 - 1984)

M&I users 40,960 Irrigators 41,741 Power users 853,763
Ad valorem 2,497 Non-reimbursable 1/ 164,123
Fish and Wildlife 9,429 Recreation 6,850

1/Includes $59,400,000 for irrigation developments on Indian reservations on which the Secretary of the Interior may choose to defer repayment under Leavitt Act.

49.

Project Features and Costs

Costs of the Commission Plan are displayed in the following tabulations:

Supply works and irrigation facilities	Remaining cost ($1,000)
Snake Creek Pumping Plant	$ 315
Lake Audubon	0
McClusky Canal	12,498
Turtle Lake Irrigation Area (13,700 acres)	32,600
McCLusky Canalside Irrigation Area (4,000 acres)	320
Lincoln Valley Irrigation Area (6,515)	20,640
Lincoln Valley Drainage	13,200
Lonetree Dam Foundation Preservation	3,000
Sykeston Canal (capacity = 1,600 cfs)	28,000
New Rockford Canal (capacity = 1,600 cfs)	41,727
Harvey Pumping Irrigation Area (2,000)	5,068
New Rockford Canalside Irrigation area (1,200 acres)	102
New Rockford Irrigation Area (20,935 acres)	56,695
New Rockford Extension Irrigation Area (32,000)	71,530
James River Feeder Canal (1,600 cfs)	2,996
Jamestown Dam and Reservoir as constructed	0
James River Channelization	16,809
LaMoure Irrigation Area (13,350 acres)	34,092
Oakes Pumping Plant	(included in West Oakes irrigation area cost)
Oakes Canal	2,480
Oakes Ground Water Recharge (Research Project) 1/	-
West Oakes Irrigation Area including West Oakes Test Area	34,247
Glover Reservoir (Phase I) 2/	24,500
Subtotal	$400,819
Indian Missouri River Pumping Irrigation Areas 3/	
Lucky Mound (7,700 acres)	24,400
Upper Six-Mile Creek (7,500 acres)	24,000
Fort Yates (2,380 acres)	11,000
Subtotal	$ 59,400
TOTAL	$460,219

1/ No capital cost.

2/ To be constructed by the State of North Dakota using Garrison Diversion Unit appropriations.

3/ To be funded under Garrison Diversion Unit appropriations.

Other Project Costs

Flood control	$ 3,049,000
Recreation	1/ 6,850,000
Fish and Wildlife Mitigation and Enhancement	2/ 34,675,000
TOTAL	$ 44,574,000

Operation and Maintenance Costs
($ per year)

Irrigation	$ 4,827,000
M&I	10,490,000
Flood control	19,000
Fish and Wildlife	827,000
Recreation	232,000
TOTAL	$ 15,855,000

Cost Summary

Remaining costs of supply works and irrigation facilities	$460,219,000
Municipal, rural, and industrial water systems	401,200,000
Fish and wildlife	34,675,000
Flood control	3,049,000
Recreation	6,850,000
TOTAL remaining capital cost	$ 905,993,000
Sunk costs of supply works	213,370,000
TOTAL capital cost	$ 1,119,363,000

Of the $213,370,000 sunk costs, $35,920,000 are considered to be abandoned. These costs reflect project features which will not be used in the Commission Plan.

1/Federal share of 50/50 cost sharing with the State.

2/Fish and wildlife mitigation and enhancement includes:

- Development costs for mitigation on (1) project lands acquired to date, (2) Lonetree Reservoir site lands, and (3) Kraft Slough acreage:

  (51,751 acres at $205/acre) $10,609,000

- Remaining project fish and wildlife lands to be acquired:

  (30,948 acres at $755/acre which includes $205/acre development costs $23,366,000

- Fixed mitigation costs: $ 700,000

  TOTAL $34,675,000

Environmental Impacts

Among the concerns of the Commission were the wildlife values of Kraft Slough which would have been flooded by a project feature under the 1965 authorized plan.

The Commission recognizes Kraft Slough as a unique area with natural resource values that transcend all other possible uses. The Commission proposes to leave Kraft Slough in its natural state, without impact. The Commission recommends that Kraft Slough be purchased in its entirety as mitigation and be managed in perpetuity for its wildlife values.

Lonetree Reservoir is not required for the level of irrigation proposed in the Commission Plan. Under the principle that future opportunities are not to be foreclosed, the area will be considered as a potential reservoir site. However, it can be used in the interim for wildlife purposes provided such use will not prohibit its future use as a reservoir site. Interim wildlife values will be credited to a mitigation ledger. If the reservoir is ultimately constructed, appropriate mitigation adjustment shall then be made. The Commission recommends that Lonetree land acquisition be completed and the site be retained in ownership by the United States and managed under agreement with the State of North Dakota for wildlife purposes in accordance with the Fish and Wildlife Coordination Act.

The Commission recognizes that wildlife and wetland issues are sufficiently substantive to have materially slowed project construction. Therefore, the Commission Plan includes a clearly defined mitigation and enhancement process to provide the responsible agency with specific guidelines.

The Commission recognizes that in addition to providing critical wildlife habitat, some wetlands also provide other benefits including water quality protection, flood control, ground-water recharge, and scientific, aesthetic, and recreation benefits. The Commission's recommended acre-for-acre mitigation strategy should protect these diverse values.

So substantive are the wildlife and wetland issues that it is advisable that a clearly defined mitigation process be established. Avoidance of a loss, thereby eliminating the need for mitigation, is the preferred process. If that is not possible, then mitigation will be implemented on an acre-for-acre basis, replacing lost lands with their ecological equivalent as determined by (1) the type of wildlife use (for wetlands and contiguous uplands), and (2) equivalent vegetative cover (for woodlands and other uplands). Mitigation for impacts to National Wildlife Refuge lands and North Dakota Game and Fish Department lands acquired in part with Federal monies would be implemented in accordance with the National Wildlife Refuge System Administrative Act of 1966 (16 U.S.C. 688dd) and Federal Aid to Wildlife Act (16 U.S.C. 669i), their respective regulations (50 CFR 29 and 80), and other appropriate legislative mandates.

Wildlife Habitat
Mitigation/Enhancement Ledger
(Acres)

	Wetlands	Grasslands	Woodlands	Total
Losses Due to Project	14,212	22,432	1,471	38,115
Credit Toward Mitigation				
Lonetree Reservoir site	3,634	28,993	263	32,890
Johnson Lake purchase	210	650	5	865
Kraft Slough purchase	989	1,638	53	2,680
McClusky Canal RW		6,080		6,080
New Rockford Canal RW		1,112		1,112
Previously purchased Lands	2,867	9,718	11	12,596
Excess project lands	32	1,592	24	1,648
Additional Acreage needed to offset losses 1/	6,480	18,348 2/	0	24,828
Replacement for woodlands 3/		-2,230	+2,230	
Total Mitigation Enhancement	14,212	65,901	2,586	82,699
Credit Toward Mitigation	14,212	22,432	2,586	39,230
Credit Toward Enhancement	0	43,469	0	43,469

1/ Mitigation by purchasing restorable wetlands.
2/ Grasslands purchased adjacent to wetlands to provide roughly 3 acres of grasslands for each acre of restored wetlands.
3/ Woodlands are replaced at the ratio of 2 acres planted for each acre lost.

Priorities for means of mitigation would be restoration of drained wetlands, followed by creation of new wetlands, and then acquisition of existing wetlands. Other wildlife habitat types would be mitigated in the same order. Drainage into project conveyance and drainage facilities from non-project lands in violation of policy or State law would be considered as a mitigable loss.

A detailed mitigation plan will be developed based upon project design and be periodically updated to reflect project changes. The mitigation program will be adjusted to compensate for unanticipated losses and for latent losses or benefits as they are determined. A mitigation ledger will be maintained to allow flexibility in mitigation timing and permit valuable wildlife habitat to be acquired and banked as a credit to the mitigation plan in advance of need.

Mitigation measures will be implemented prior to loss of the resource and unfulfilled mitigation from past project losses need to be completed. Prorata enhancement measures will be implemented concurrently with mitigation. Operation and maintenance activities (and O&M funding) will commence as mitigation and enhancement measures are completed. As a minimum, funding for mitigation and enhancement will be treated on a parity with construction funding. Since the mitigation and enhancement program involves about 5 percent of total project cost, no less than 5 percent of all annual project-related capital expenditures will be made available for mitigation and enhancement purposes to keep mitigation measures equal to mitigation needs associated with project construction until completion of the mitigation and enhancement programs. Actions necessary to comply with 16 U.S.C. 668dd and 669i (50 CFR 29 and 80) are in addition to the preceding requirements, since specific processes are established therein for compensating values lost to the National Wildlife Refuge System, and State lands acquired through Federal Aid funding. If necessary the ratio of mitigation and enhancement to construction may be increased to assure that mitigation and enhancement maintain parity within the construction schedule.

To ensure that mitigation and enhancement and the projects wildlife programs proceed with broad oversight and coordination, the Commission recommends that the Secretary of the Interior establish a Federal Advisory Council to review implementation plans, budgetary requirements, and program results. The Advisory Council should be composed of three residents of the State of North Dakota and three residents of other States, all having extensive professional experience in waterfowl and wetlands management; and the Commissioners of the North Dakota Department of Agriculture and the North Dakota Game and Fish Department; the Regional Director of the Bureau of Reclamation; and the Regional Director of the U.S. Fish and Wildlife Service. The Regional Director of USFWS would serve as chairman and the Designated Federal Representative. The Advisory Council would meet twice a year, review the wildlife programs and annually make recommendations for any needed revisions to the wildlife resource management programs for consideration by the Secretary of the Interior, the Governor of North Dakota, and the managing agencies.

In general, it is anticipated that most land acquisition for wildlife programs would be through willing sellers. The Advisory Council would make recommendations concerning the need for use of eminent domain authority to obtain satisfactory implementation of wildlife programs on a case-by-case basis.

The Commission Plan will have impacts of some degree upon five National Wildlife Refuges, seven Waterfowl Production Areas, and 3,981 acres of wetland easements. On the five National Wildife Refuges, an estimated 447 acres of wetlands would be lost and 24,979 acres adversely affected. Two State wildlife management areas of 11,883 acres would be affected. Throughout the project area, an estimated 14,730 wetland acres will be lost and 5,159 adversely affected. In addition, a total of 20,806 upland acres will be lost.

The wildlife habitat losses need to be balanced against mitigation that has occurred (lands already purchased) and by crediting existing wetlands based upon the Commission's recommendations of acquiring Kraft Slough and managing Lonetree Reservoir site for wildlife purposes. Included in the Lonetree mitigation credit is the proviso that acquisition in the site be completed to facilitate management, and remove the refuge status of Sheyenne Lake pursuant to the exchange of land provisions in the National Wildlife Refuge Act. Therefore, the Johnson Lake tract acquisition should be completed and the area be used to replace Sheyenne Lake Refuge. The Commission fully realizes that this mitigation plan, in part, uses the existing wetlands of Kraft Slough, Johnson Lake, and Lonetree Reservoir site as mitigation rather than acquiring drained wetlands for restoration as defined in the mitigation process.

In balancing the total acreage of all habitats needed to achieve the objective that there will be no net loss in wildlife habitat under the Commission Plan, a total of 82,699 acres are needed for mitigation and enhancement. That total includes 39,230 acres or 47.4 percent mitigation and 43,469 acres or 52.6 percent enhancement. These ratios differ from the ratios stemming from the master contract between the State of North Dakota and the United States. It is recommended that when the new master contract is negotiated to implement the Commission's recommendations, present conditions be the basis for developing new ratios between mitigation and enhancement. The mitigation acreage includes offsetting the anticipated loss of 14,212 acres of wetlands by crediting existing wetlands and acquiring 6,480 restorable wetland acres plus associated uplands.

The mitigation acreage is based on the total acres of wetlands lost, 50 percent of the wetlands adversely affected, and the total of grasslands and woodlands lost (not including public wildlife area habitat). For mitigation purposes, Type 2 wetlands are classified with grasslands. In effect, the figure is an estimate of the acre-for-acre replacement; however, it should be refined for the eventual mitigation plan. Not included in these figures are unquantified impacts, or the ecological equivalent values of each habitat type. In developing and implementing the mitigation plan, the implementing agencies, with the oversight of the Federal Advisory Council, will reassess the data to arrive at a specific mitigation strategy within the limits of cost constraints based upon estimates contained in this report.

The enhancement acreage is in addition to full compensation for acreage under mitigation. Enhancement measures include reestablishing damaged wildlife habitat, creating recreation sites, and creating or improving fisheries. As an adjunct to improving fisheries, construction of a hatchery may be needed for adequate fish stocking throughout the project.

Recreation

The North Dakota Parks and Recreation Department has identified three areas to be developed as parks and three trail areas under the State program and 11 regional/county recreation areas. Under the Commission's recommendation the acquisition and development of the recreation features would be concurrent with other project construction. Funding would be on a 50-50 ratio.

Proposed North Dakota Recreation Areas

State Parks and Trails

Missouri River
Sheyenne Valley
Devils Lake
Missouri River Canoe Trial
James River Canoe Trail
North Country Trail

Regional/County Recreation Areas

McClusky Lakes
Jamestown Reservoir
Brekken-Holmes
Grand Rapids Park
Lake Sakakawea Access 1/
Stump Lake 1/
Belmont Park
Lake Darling
Bison Park
Mouse River Forest Park
Mouse River Park

1/Lake Sakakawea and Stump Lake include units within their general areas for a total of 16 units within the overall state plan.

Water Quality

High salinity concentrations in Lake Audubon and the McClusky Canal would result in similarly high salinity concentrations in the New Rockford Canal, whose deliveries would be marginal for agriculture unless the system is freshened. A current program involving flushing 40 cfs down Painted Woods Creek has been underway for only a short time and its success is in question. Therefore, the Commission recommends that the current freshening program be reevaluated along with an examination of alternative approaches to reduce salinity levels in Lake Audubon and the McClusky Canal. In particular, the feasibility of reverse draining Lake Audubon into Lake Sakakawea, and back pumping the McClusky Canal, should be considered. The Commission also recommends that the Secretary direct the Bureau of Reclamation to develop a program to freshen the Lake Audubon/McClusky Canal system to the extent that is economically and technically feasible.

Increased irrigation in the New Rockford Extension, the Oakes, and LaMoure areas will contribute to some degradation of water quality in the southward-flowing James River. The most significant effect on water quality would be due to irrigation return flows. After equilibrium conditions are reached in 50 to 70 years, an increase of 22 percent in salinity, from 555 ppm to 680 ppm, would be anticipated for median August flows at the South Dakota border. Such water is suitable for agricultural use. Hardness and concentrations of sulphate, sodium, and nitrates, important components of salinity, would increase in proportion to expected salinity increases. To offset that increase, such quantities of dilution water shall be released as required to maintain monthly discharge weighted average salinity concentrations at the South Dakota border at or below the pre-project historical discharge weighted average.

Salinity concentrations would decrease in the Sheyenne and Red Rivers as the result of augmentation of treated waters from the Missouri River for municipal, rural, and industrial use. These deliveries also would stabilize streamflow and improve water quality during low flow periods.

To lessen the prospect of degraded water quality in the James River, the Commission recommends that Best Management Practices be required and monitored on all irrigated areas that might contribute to return flows of the James River system.

Further, the Commission recommends that streamflow and quality continue to be monitored.

Project Impacts - International Concerns

Concerns were voiced by the Government of Canada regarding provisions for the transfer of Missouri River water for irrigation within the Hudson Bay and Devils Lake drainages. Concerns center on potential for damage to the commercial fisheries from biota transfer and the quality of water within Manitoba Province from irrigation return flows. These concerns have not yet been fully resolved to the satisfaction of Canada, and the effort to devise a resolution acceptable to both Canada and the United States must continue.

The Commission Plan contains no irrigation within these drainage systems. Areas identified for irrigation lie either within the Missouri or James drainages, or contain provisions for return flows back to Missouri-side basins. The outlet channel from Devils Lake to the Sheyenne River would transport water into the Sheyenne and on to Lake Ashtabula, causing an increase in total dissolved solids. This is acceptable to Canada because of the large dilution volume provided by mixing with the total flow of the Sheyenne and Red Rivers. The Sheyenne flows will be increased by carrying project municipal and industrial water to Lake Ashtabula for distribution to the cities of Fargo and Grand Forks.

The Commission Plan is not likely to violate the intent of the Boundary Waters Treaty of 1909. Waters delivered into the Hudson Bay drainage for municipal and industrial use would be filtered and disinfected to prevent transfer of objectionable fish species and pathogens. Prior to delivery of treated Missouri River water into the Hudson Bay drainage basin, however, a comprehensive inventory of fish species and pathogens present in Manitoban waters should be conducted by an independent international body to provide a baseline of current conditions.

Bi-National Program

Problems such as the proposed irrigation of agricultural lands within the Souris and Devils Lake Basins with Missouri River water, in conflict with the intent of the Boundary Waters Treaty of 1909, are not unique to North Dakota and the Garrison Diversion Unit, and must be addressed over time. The goal is the cooperative and efficient use of resources, without regard to political boundaries. A mechanism needs to be devised, independent of Government involvement, that offers responsible solutions to the use of cross-border natural resources that meet the needs of communities in geologically and geographically similar regions. This mechanism should be established, through negotiations and cooperative study by appropriate agencies and independent entities, to define ways to exchange resources, including water, power, minerals, and markets to meet mutual needs.

Two key elements would be addressed at least initially in developing this mechanism: (1) the initiation of strategies for mutually beneficial irrigation and MR&I water development within North Dakota, Manitoba, and Saskatchewan, and (2) the acquisition of wildlife habitat in the region. Although the first of these echoes current efforts to provide water to currently restricted basins, the difference is that rather than attempting to overcome the obstacles of topography with reservoirs that connect different watersheds, the mechanism's water development strategy would be pointed to overcoming the artificial national boundary that currently restricts hydrologically efficient development within the area. While the gross benefits available from a joint watershed development might be less than those envisioned for the Souris region offered by the authorized Garrison project, net benefits could well be greater and dispersed more widely to meet human needs.

Funds for this activity could come from a settlement of the siting of the Western Area Power Administration-Manitoba electrical transmission line. Contributions to the initial fund would come from the various State and Provincial agencies expected to benefit from improved power and water development. This initial funding would be augmented by contributions from other participating entities, including, for example, Minnesota and South Dakota. The funding mechanism for continuing payments would be a power sale surcharge, or from the presumed net profits of possible new technologies and businesses that are spawned as a direct result of developments. Although this organization would first address problems associated with resource exchange between Canada and North Dakota, its long-term charge would be to seek, develop, and establish strategies and technologies that facilitate the efficient exchange of natural resources to meet cross-border needs.

Toward this end, the respective Governments of the United States, Canada, North Dakota, Manitoba, and Saskatchewan should enter consultations to determine, during 1985, the nature and scope of a Bi-National Resource exchange program.

Project Implementation

The Commission recommends that the Secretary of the Interior proceed immediately with (1) construction of those portions of the Commission Plan that are contained in the project, as set forth in the Initial Stage 250,000 Acre Plan, and (2) actions leading to final designs for early implementation of the Commission Plan. The Commission also recommends that the Secretary propose enabling legislation to Congress by February 15, 1985, or as soon as practicable, to assure sufficient authority to implement the Commission Plan. If, by the sine die adjournment of the 99th Congress, legislation authorizing the Secretary to implement the Commission Plan has not been enacted into law, the Commission recommends the Initial Stage Garrison Diversion Unit be carried forward and all recommendations of the Commission be dismissed except as to features of the Commission Plan which were previously authorized by the Congress.

The Commission recommends that National Environmental Policy Act compliance for features carried over from the authorized project be deemed adequate for immediate implementation where those features have been adequately evaluated in a previous Final Environmental Statement and the implementation of the Commission Plan does not require supplementation to any FEIS. Mitigation, however, should be based on replacement on an acre-for-acre basis with ecological equivalency to the extent possible. Management of irrigation water utilizing mandatory Best Management Practices needs analyses under NEPA. For other features of the plan, the NEPA compliance process should be compressed into an 18-month period following Congressional authorization.

The project features common to the authorized 250,000-acre Garrison Diversion Unit and the Commission Plan covered by previous Final EIS's include:

Snake Creek Pumping Plant	98 percent complete
McClusky Canal	88 percent complete
New Rockford Canal	23 percent complete
James River Feeder Canal	15 percent complete
Jamestown Dam and Reservoir	Complete
Robinson Coulee Diversion Dike and Drain	
New Rockford Irrigation Area	2 percent complete
LaMoure Irrigation Area	0 percent complete
West Oakes Irrigation Area	44 percent complete
West Oakes Pumping Plant	89 percent complete

Those aspects of the Commission Plan which have not been satisfactorily covered in previous EIS's include:

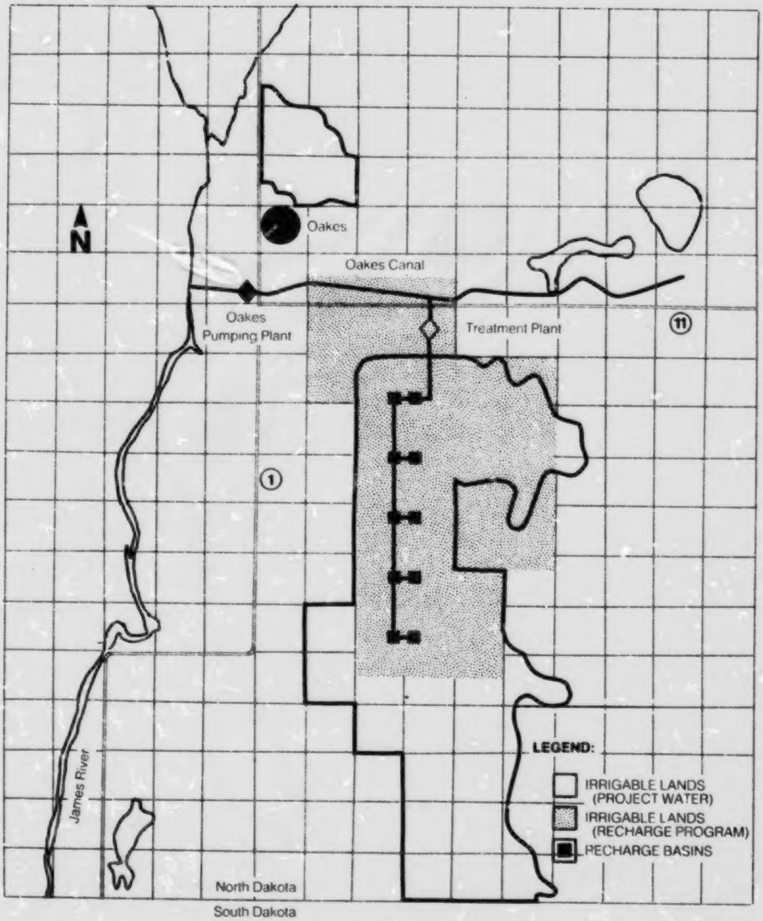
- Sykeston Canal
- McClusky Canalside Irrigation Area
- New Rockford Canalside Irrigation Area
- Oakes Ground-Water Recharge Study
- Glover Reservoir
- McClusky Canal Controls
- Lonetree Damsite Revegetation and Wildlife Management
- Stump Lake Outlet Study
- James River Channelization

To facilitate completion of the NEPA compliance process, the Commission recommends that the Secretary establish an Environmental Impact Task Force with the Bureau of Reclamation as the lead agency and the State of North Dakota, Fish and Wildlife Service, Bureau of Indian Affairs, Environmental Protection Agency, Indian Tribes, and other appropriate entities as cooperating agencies.

It is also recommended that upon authorization of the Commission Plan, the 1966 Master Contract with the State of North Dakota, the Garrison Diversion Conservancy District, and any other contracts subsidiary to the Master Contract be renegotiated to secure the non-Federal operation and maintenance, replacement, and capital repayment obligations for the Commission Plan in a manner comparable to that developed pursuant to the 1965 authorization of the Initial Stage of the Garrison Diversion Unit, and in accordance with current Reclamation law and Departmental Policy.

Oakes Aquifer Recharge Study

During the Commission's deliberations, a concept was identified whereby the glacial aquifer which underlies a large part of the West Oakes area could be artificially recharged with desilted water from the James River. Under this concept, the aquifer would function as a storage reservoir having constant recharge and seasonally varying withdrawals for irrigation by wells. A conceptional drawing of the recharge concept follows. The Commission believes that the concept deserves evaluation as to its relative merit for meeting a part of the water reregulation needs in the Oakes area and recommends that feasibility studies be completed prior to making decisions which would foreclose the opportunity to take advantage of this concept.


N
Oakes
Oakes Canal
Oakes
Pumping Plant
Treatment Plant
⑪
①
James River
LEGEND:
IRRIGABLE LANDS
(PROJECT WATER)
IRRIGABLE LANDS
(RECHARGE PROGRAM)
RECHARGE BASINS
North Dakota
South Dakota

WEST OAKES AQUIFER RECHARGE STUDY AREA

APPENDIX E

COMPARISON OF COMMISSION PLAN TO 1965 AUTHORIZED PLAN

Both the Commission Plan and the 1965 Authorized Plan provide for the development of water supplies needed for irrigation; municipal, rural, and industrial purposes; fish and wildlife mitigation and enhancement; and recreation.

The Commission Plan will develop less land for irrigation (130,940 acres) compared with 250,000 acres under the 1965 Plan, but will provide municipal, rural, and industrial water service to many more North Dakota citizens (as many as 130 communities with 376,000 people) than contemplated under the 1965 Plan, which would have served only 14 unidentified communities.

The Commission Plan will also meet municipal, rural, and industrial water needs in Fargo, West Fargo, and Grand Forks via a direct discharge to the Sheyenne River, but only following filtration and disinfection to remove biota prior to discharge.

The Commission Plan will also divert Missouri River water into the Souris River Basin for municipal, rural, and industrial uses, but only following filtration and disinfection to ensure that no biota transfer is possible, and then only via closed pipeline to avoid any accidental contamination. In contrast, the 1965 Plan would provide irrigation and municipal, rural, and industrial water service via open canals to the Souris, Sheyenne, Devils Lake, and Wild Rice/Red River Basins, with a fish screen in the McClusky Canal serving as protection against biota transfer.

Under the Commission Plan, water for irrigation uses will be distributed primarily to the James River Basin. While some irrigation development will take place in the Sheyenne River Basin under the Commission Plan, all return flows from those areas will be intercepted and returned to the James River Basin or the principal supply works, or will be treated before release to prevent biota transfer.

Both plans rely on Missouri River water conveyed via the Snake Creek Pumping Plant, Lake Audubon, and the McClusky Canal, all of which are essentially complete. Further distribution of project water supplies would be provided via Lonetree Reservoir and the Velva and New Rockford Canals under the 1965 Plan, while the Commission Plan will instead link the McClusky and New Rockford Canals via the Sykeston Canal. Because the Commission Plan does not provide for irrigation water service to the Souris River Basin, the Velva Canal is not needed. Both plans include the James River Feeder Canal, Jamestown Reservoir (already constructed), and channelization of parts of the James River as project features. On the lower James, regulation of project flows would have been provided under the 1965 Plan by Taayer Reservoir, which is not included in the Commission Plan. Under the Commission Plan, flows on the lower James will be regulated by a storage facility which will be constructed near Glover, North Dakota.

Under the 1965 Plan, the Devils Lake Chain would receive an assured water supply for freshening and stabilization. Also, construction of an outlet to the Sheyenne River is authorized. The Commission Plan includes consideration of an outlet from the Devils Lake system to the Sheyenne River, and provides for consideration of future funding to construct an inlet to the system based on the results of Corps of Engineers' studies in progress, NEPA compliance with appropriate permits, and consultation with Canada.

The Commission Plan includes special financing arrangements for the municipal, rural, and industrial water supply and distribution systems. The cost to users above their present water costs will be limited to $10 per month per household, or the operation and maintenance costs of the system, whichever is greater. Costs not repaid by the users will be repaid by Pick-Sloan Missouri Basin Program power revenues without interest, in a manner similar to that in which repayment assistance is provided for irrigation water service. Under the provision of the 1965 Plan, municipal and industrial water users would be required to pay fully operation and maintenance costs and all capital costs with interest.

Environmental impacts will be substantially reduced under the Commission Plan from those of the 1965 Plan. The plan defines a mitigation process and budgetary relationship to construction funds thereby placing emphasis on mitigation to assure that there is no net wildlife habitat loss due to the project. Specifically, the wetland acreage impacted will be much less for the Commission Plan, and water quality impacts from irrigation return flows also will be minimal. Kraft Slough, intended for the site of Taayer Reservoir under the 1965 Plan, will be preserved in perpetuity for wildlife purposes under the Commission Plan. Additionally, the impacts on National Wildlife Refuges and Waterfowl Production Areas are fewer under the Commission Plan.

The Commission Plan suggests congressional oversight hearings and provides for the appointment of a five-member commission to consider potential developments for the Three Affiliated Tribes at Fort Berthold and the Standing Rock Sioux. The Commission Plan also includes a ten-member Advisory Council to oversee fish and wildlife mitigation and enhancement.

APPENDIX F

RESPONSE TO PROVISIONS OF PUBLIC LAW 98-360

Legislation which created the Garrison Diversion Unit Commission directed that 11 specific issues be considered in the process of formulating conclusions and recommendations. This appendix provides a comparison of the issues listed in Public Law 98-360 with actions recommended by the Commission.

The 11 issues contained in Public Law 98-360, Section 207(c)(2), were addressed in testimony received by the Commission at public hearings in Bismarck (September 10-11), and Fargo (November 16-17), North Dakota; several were the subjects of workshops conducted by the Commission staff in October in Bismarck. In addition, Commission and staff members reviewed literature that addressed various factors, including the North Dakota State Water Plan, the North Dakota Plan for the Development of the Garrison Diversion Unit, the U.S. Geological Survey's Synopsis of Ground-Water and Surface Water Resources of North Dakota, the Report to the International Joint Commission by the Garrison Diversion Study Board, relevant Environmental Assessments and Environmental Impact Statements, and other reports from Federal, State, and private sources.

The issues are listed below, followed by references to other appropriate sections of the report. These references are provided so that the reader can identify how issues defined in the legislation were taken under consideration.

207(c)(2)(A) Costs and Benefits Incurred and Opportunities Foregone

The Commission Plan affirms the Commission's belief that North Dakota deserves a Federally-funded water development program as described in this report.

The Commission notes that the Tribes of the Standing Rock and Fort Berthold Indian Reservations bore an inordinate share of the cost of implementing Pick-Sloan Missouri Basin Program mainstem reservoirs. The Commission Plan includes irrigation on those reservations as well as a recommendation for a review commission and Congressional oversight hearings to find ways to resolve inequities.

207(c)(2)(B) Beneficial Use of Missouri River Water

The Commission concluded that there is a need to beneficially use water from the Missouri River Basin. Discussion on this issue can be found in Project Features section of Appendix D. The Commission Plan calls for extensive diversion of Missouri River water to many municipal, rural, and industrial sub-systems, and for irrigation of approximately 113,360 acres of land in the James River Basin and 17,580 acres on the Fort Berthold and Standing Rock Indian Reservations.

207(c)(2)(C) Construction of Additional Facilities

The Commission concluded that there is a need to construct additional facilities to beneficially use water from the Missouri River. These facilities are for diversion and distribution of water to meet irrigation, municipal, rural, and industrial use. Discussions and findings on this issue are found in the "Project Features" section of Appendix D.

207(c)(2)(D) Water Needs

The municipal and industrial water needs of North Dakota were extensively considered by the Commission. The Commission Plan provides for irrigation of 130,940 acres of land and includes a water service system for municipal, rural, and industrial users throughout much of the State. Principal sources of water are the Missouri River and local aquifers where available. The plan also specifies treatment plants to improve the quality of substandard or marginally acceptable water. Conveyance of water uses a mix of canals, pipelines, and instream flow. The State of North Dakota's proposal to construct the Southwest Pipeline Project was excluded from the plan at the request of State officials. The discussion of how those water needs are to be met can be found in Appendix D.

207(c)(2)(E) Ground-water Recharge

Ground-water recharge, to regulate and manage the use of glacial aquifers for municipal and industrial use and irrigation, was considered by the Commission as discussed in the "Project Features" section of Appendix D. The Commission Plan incorporates development of satellite well fields for municipal, rural, and industrial purposes and a research program to investigate a recharge project for the West Oakes area which might be used to satisfy peak flow demand for irrigation.

207(c)(2)(F) North Dakota Water Plan

The Commission considered the North Dakota Water Plan in formulating the municipal, rural, and industrial water supply systems and irrigation areas found in the Commission Plan. The State Water Plan and the North Dakota Plan for Development of the Garrison Diversion Unit (September 1984) provided useful criteria and design information for configuring water distribution, treatment, and use facilities.

207(c)(2)(G) Garrison Diversion Unit Reformulation

The Commission devoted considerable resources to evaluating over 40 alternatives to the authorized Garrison Diversion Unit. Twenty-five of the alternatives were evaluated in the Interim Staff Report on Issues and Alternatives released on November 7, 1984. The Commission Plan incorporates parts of those alternatives. Further information can be found in the "Project Features" section of Appendix D.

207(c)(2)(H) Equity

The Commission recognizes that the beneficiaries of its plan are substantially different than would be the beneficiaries of the authorized plan. The State of North Dakota should review the organizational structure of its existing political subunits for implementation of the Garrison Diversion Unit, with a view toward achieving equity in implementation of the Commission Plan. The plan specifies irrigation of 17,580 acres on the Fort Berthold and Standing Rock Sioux Indian Reservations and a series of other developments for Tribes impacted by the creation of Lake Sakakawea. A discussion of these issues can be found in the "Conclusions and Recommendations" section of this report.

207(c)(2)(I) Fiscal and Economic Impacts

The Interim Staff Report on Issues and Alternatives and subsequent discussions of the report at the public hearing in Fargo on November 16-17 emphasized the comparative fiscal and economic impacts of the authorized Garrison Diversion Unit and alternatives. These impacts also were further discussed by the Commission and staff at a business meeting in Washington, D.C., on November 28. The objective of the Commission Plan is to meet the needs of the greatest number of people at a cost significantly less than the authorized plan. Whereas the authorized plan has an estimated cost of about $1.3 billion, the Commission Plan is estimated to cost about $1.1 billion.

207(c)(2)(J) Environmental Impacts and Compliance Procedures

The Commission Plan defers Lonetree and preserves Kraft Slough, parts of the authorized plan which would significantly impact wetlands and wildlife habitat. Where project features will affect wildlife habitat, mitigation measures are to be undertaken on an acre-for-acre, ecologically equivalent replacement basis, to the extent possible. The plan also minimizes the water quality impacts of irrigation return flows on surface water resources by reducing irrigation acreage from 250,000 acres to approximately 130,940 acres.

207(c)(2)(K) International Concerns

The Commission Plan recognizes international concerns expressed by Canadian officials. International impacts of biota transfer and irrigation return flows were considered in all alternatives in the Interim Staff Report on Issues and Alternatives and were given serious consideration in the decisionmaking process of the Commission. The Commission believes that its plan satisfies all Canadian concerns; however, continued diplomatic consultations are necessary during project implementation.

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16. ABSTRACT
Editor: PJG

The Garrison Diversion Unit Commission was appointed by the Secretary of the Interior on August 11, 1984, to review the controversy surrounding the authorized Initial Stage of the Garrison Diversion Unit, to evaluate the contemporary water needs of the State of North Dakota, and to make recommendations.

The Commission members formulated an alternative plan, herein referred to as the Commission Plan, to provide the State of North Dakota with a Federally-funded water development project which avoids the most serious international and environmental impacts resulting from the authorized plan.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. *DESCRIPTORS*-- /moral commitment /municipal and industrial water / irrigation development /environmental impacts /international impacts /unique wildlife habitat /Kraft Slough /power revenue repayment assistance /biota transfer

b. *IDENTIFIERS*-- /Garrison Diversion Unit /Garrison Diversion Unit Commission /Pick-Sloan Missouri Basin Program

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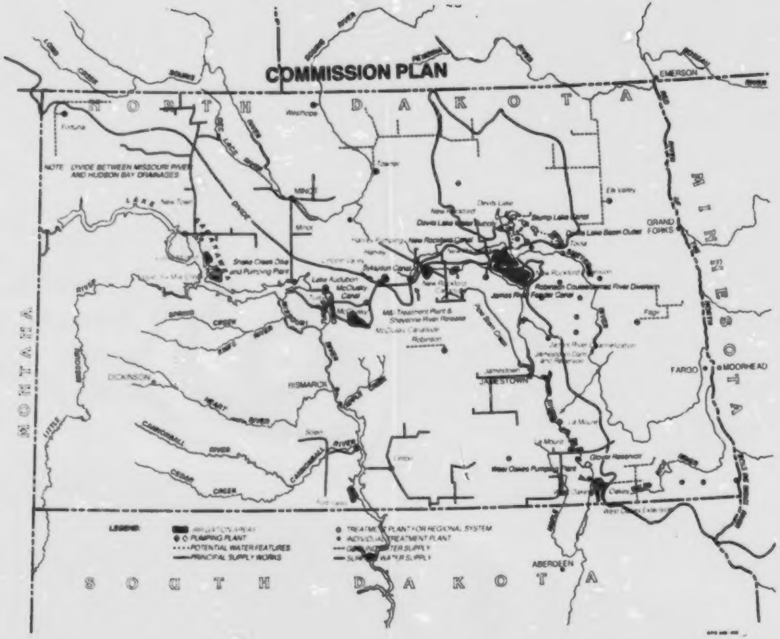
COMMISSION PLAN
N O R T H D A K O T A
S O U T H D A K O T A
M O N T A N A
M I N N E S O T A
NOTE: DIVIDE BETWEEN MISSOURI RIVER AND HUDSON BAY DRAINAGES
EMERSON
Fortuna
Westhope
MINOT
Minot
New Town
Lake Sakakawea
Snake Creek Dike and Pumping Plant
Lake Audubon
McClusky Canal
Sykeston Canal
New Rockford Canal
New Rockford
Devils Lake
Devils Lake Inlet Canal
Stump Lake Outlet
Lake Basin Outlet
Tolna
Elk Valley
GRAND FORKS
Robinson Coulee
James River Feeder Canal
M&I Treatment Plant & Sheyenne River Release
Robinson
Jamestown
JAMESTOWN
Jamestown Dam and Reservoir
James River Channelization
FARGO
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BISMARCK
DICKINSON
HEART RIVER
CANNONBALL RIVER
CEDAR CREEK
SPRING CREEK
KNIFE RIVER
LITTLE MISSOURI
Linton
Fort Yates
La Moure
Glover Reservoir
West Oakes Pumping Plant
Oakes
West Oakes Extension
ABERDEEN
LEGEND:
IRRIGATION AREAS
PUMPING PLANT
POTENTIAL WATER FEATURES
PRINCIPAL SUPPLY WORKS
TREATMENT PLANT FOR REGIONAL SYSTEM
INDIVIDUAL TREATMENT PLANT
GROUND WATER SUPPLY
SURFACE WATER SUPPLY

118,

Testimony Submitted to the

Committee on Interior and Insular Affairs
Subcommittee on Water and Power Resources

by

Congressman Byron L. Dorgan
State of North Dakota

February 28, 1985

Mr. Chairman and Members of the Committee:

First of all, I would like to thank Chairman Miller for holding hearings on this bill on an expedited basis.

I have introduced H.R. 1116 which was drafted by the Department of the Interior and which provides authorizations for three areas determined necessary by the Interior Department to conform to the recommendations of the final report of the Garrison Commission.

I would like, in just a few minutes, to describe to you where we are and how we got here. During the debate on the FY 1985 funding for the Garrison Diversion Unit, the Senate attached a provision to their appropriations bill asking that $53 million be approved for FY 1985 but that such money would not be released until a Commission appointed by the Secretary of the Interior would complete a study of the Garrison Diversion Unit to make recommendations to the Secretary about the future of that project.

Although I was not a part of the agreement to establish that Commission, the legislation that accomplished it was passed by the House and the Senate, and the Commission was appointed by the Secretary of the Interior and completed its work by the end of 1984.

The Commission made many recommendations about the Garrison Diversion Project, and in three areas the recommendations, in order to be implemented, need authorization by the U.S. Congress. The intent of H.R. 1116 is to authorize those three areas. The hearing this morning is to take testimony on H.R. 1116 and also to hear from the groups interested in the Garrison Commission's final report.

I'm sure it's not a surprise that in a matter as controversial as this one, there is still considerable disagreement about the furture of the Garrison Project. It's safe to say that no one feels they got all they wanted from this Garrison Diversion Commission. However, as the only member of this

House representing North Dakota, it is my responsibility to now proceed to try to get those Commission recommendations implemented and that is the purpose of the introduction of the bill before you today.

Although I would have preferred some recommendations from the Garrison Commission that were much different than those which were sent to the Interior Secretary, I understand the difficulty of reaching a compromise in these instances, and for that reason, I want to tell the subcommittee that it's important that, in order to get this Commission report to Congress, we not deviate from that report in a way that would destroy the compromise.

Proponents and opponents of this project are going to want to add and delete to this Commission recommendation, and probably to this authorization bill, in order to create an advantage for their particular position. I encourage this Congress to resist that and to move ahead with this Commission report.

There may be areas where constructive changes can be made that both sides will agree to, and I think that we ought to consider those as well. For example, in this authorization bill there is included a recommendation on municipal/industrial water that the State of North Dakota would like to amend. I personally support the State's amendment, and think it offers some distinct advantages. It would offer less cost to the federal government, greater flexibility to the State government, and I can't conceive of any significant objection that anyone would have to the state proposal. However, I hope this subcommittee and the full committee and the entire Congress will move carefully and deliberately fulfilling Congress's responsibility to North Dakota and doing so in an expeditious manner.

Thank you again, Mr. Chairman, for this early opportunity to hear testimony on the Garrison Commission report, and I hope that constructive and informative reports from both sides of this issue will assist the Committee members in making an overall judgment on this bill.

Testimony Submitted to the

Committee on Interior and Insular Affairs
Subcommittee on Water and Power Resources

by

Governor George A. Sinner
State of North Dakota

February 28, 1985

Mr. Chairman and Members of the Committee:

My name is George A. Sinner. I am the Governor of the State of North Dakota and I appear here today to speak in favor of legislation implementing portions of the Garrison Diversion Unit Commission's report to the Secretary of the Interior.

Original flood control legislation authorized the development of approximately 1 million acres of irrigation in my state, in return for our huge sacrifices to help our downstream neighbors. In 1965, Congress directed the Bureau of Reclamation to proceed with the initial phase of the Garrison Diversion Unit, involving the irrigation of 250,000 acres.

The Garrison Diversion project has always received strong support from the citizens of my state and from its elected and appointed officials. That has occurred both because our people care about their neighbors and because they need irrigation and water availability. Resolutions of support have been overwhelmingly adopted by each legislative assembly convened since the project was first authorized.

The Flood Control Act is a congressionally approved agreement which provides flood protection for the downstream states and water development opportunities for the upstream states.

In the years that have so far elapsed, the lower basin states have received more than the promised benefits. Damages caused by flooding have been greatly reduced, saving billions of dollars of flood damages. There have been billions of dollars worth of navigation benefits as well. Much of the lower basin floodplain has been developed for industry and agriculture adding monumental economic benefits. Low cost power produced by main stem dams is delivered throughout the area, with the majority of the power used by downstream states.

The upper basin states are still waiting for the irrigation development and municipal and industrial water. In North Dakota there are 550,000 acres of good river valley land lying under main stem flood control reservoirs. Once downstream benefits were achieved, the Project began to meet with opposition. We have done everything possible to meet the valid objections of opponents without jeopardizing our right to the benefits promised.

Mr. Chairman and members of the Committee, you have before you legislation which is based on the recommendations of the Garrison Diversion Unit Commission, an entity created by congressional action to recommend a compromise that will allow the Garrison Diversion Project to move forward. Although the recommended plan is far less than we had hoped for, it does allow us to move forward in our efforts to distribute the waters of the Missouri to areas of need in our state.

The plan provides for the immediate irrigation of approximately 130,000 acres of land in the Missouri River drainage basin, including 17,000 acres within Indian Reservations. It provides for development of municipal and industrial water supplies and sets forth recommendations concerning fish and wildlife mitigation and enhancement and it includes provisions for recreational development.

Other witnesses will elaborate on various aspects of the Commission plan.

I would like to focus on the the M & I portion of the Garrison Diversion Unit Commission recommendations. As you are aware, after the Garrison Diversion Unit Commission adopted its final recommendations on December 14, 1984, the then Governor Olson and I submitted a joint proposal for M & I development as an alternative to the Commission recommendations for M & I development. The Commission sent our recommendation along with its own to the Secretary of the Interior on December 20, 1984. Eleven of the twelve members of the Commission, we are told, liked it and said so.

The Commission's own recommendation included $400 million worth of proposed municipal systems. It also recommended that the users of the proposed municipal systems pay the monthly M & I costs or $10 per month, whichever is greater. Under the Commission's recommendations, the $10 minimum would not apply to municipal water users using water released into the Sheyenne and Red Rivers, specifically West Fargo, Fargo, and Grand Forks.

The Commission's M & I Plan also recommended that Pick-Sloan Missouri Basin preference hydro-power presently reserved for irrigation pumping purposes be made available for the Commission's M & I systems, and that a portion of the irrigation repayment assistance from the initial stage of the Garrison Diversion Unit be assigned for municipal repayment assistance.

North Dakota felt compelled to try to refine the Commission's M & I recommendations.

First, many of the cities in the Commission's recommendations will likely never see the benefits of the proposed municipal pipeline distribution systems, since the proposed municipal systems contained in the Commission's recommendations were not based on willingness to pay, feasibility, ability to pay, or interest. Second, the Commission recommendations are inequitable, in that some users would pay $10/month while others would pay the total O & M costs. Finally, the $401 million price tag for the proposed municipal systems was apparently far too high for Congress to accept.

So we developed an alternative which we think is much more workable and makes much more sense.

I will briefly review how the North Dakota plan for M & I would work.

I. Capital Costs

1. North Dakota would determine what M & I systems are most feasible, most needed, most wanted, and that most deserve financial assistance. Projects would include municipal, rural, and industrial projects, and projects throughout the entire state would be eligible.

2. Congress would appropriate non-reimburseable money, on a project-by-project basis, for construction of these projects. The aggregate total of federal dollars would not exceed $200 million.

3. The State of North Dakota would be the entity to which federal funds would be appropriated, through the Bureau of Reclamation.

It should be made clear that under the Commission M & I plan, almost all of the $401 million would be non-reimburseable, since the $10/month per family charge would only cover O & M costs. Thus, the North Dakota M & I plan represents a $200 million reduction in federal outlay.

II. State Cost Share

1. Each M & I project developed by North Dakota would require a 25 percent state cost share. The 25 percent was proposed because many of the Farmers Home Administration rural water projets are funded on a 75 percent federal grant. Also, the WEB project in South Dakota is funded on a 75 percent grant by the federal government. Thus, the proposed 25 percent state cost share is based on precedence.

2. The 25 percent state cost share would be provided as determined by North Dakota, either through state appropriations, local entities, or both. It would force us to be absolutely responsible.

3. The 25 percent state cost share could include costs advanced or incurred for project design and feasibility studies.

The state cost share would ensure M & I projects would be justified through need and local interest.

III. Water Service Contracts and O & M

1. North Dakota would be responsible for water service contracts for capital repayment, to the extent capital repayment is possible, and for O & M. Such contracts would be between North Dakota and the appropriate state and local entities. Any capital repayment pursuant to such water service contracts would go to the State of North Dakota.

IV. Sheyenne River Releases

1. The North Dakota plan for M & I releases into the Sheyenne River is the same as the Commission plan. Capital costs for construction of such facilities and for treatment would be non-reimburseable. The costs of the Sheyenne River outlet and treatment facilities would not be included in the $200 million for the State M & I plan.

V. Southwest Pipeline Project

1. The State of North Dakota originally specifically requested that the Southwest Pipeline Project be excluded from the Commission's recommendations. Thus, the Commission's recommendations do not include the Southwest Pipeline Project. However, if North Dakota would determine that financial assistance under the North Dakota M & I Plan would not increase costs or result in any delays for the Southwest Pipeline Project, the North Dakota M & I Plan would allow a portion of the $200 million for even that project. This determination would be made by the State of North Dakota.

In conclusion, we think the North Dakota alternative is cheaper, equitable, and would enable North Dakota to make something out of the Garrison Diversion Unit Commission's emphasis for municipal water. It could also be implemented without tampering with Pick-Sloan power rates and Pick-Sloan repayment assistance, which we cannot support since North Dakota would be responsible for developing the M & I projects, projects would be based on need and interest. Of greatest importance, the North Dakota M & I Plan would reduce the federal cost from $401 million to $200 million.

TESTIMONY OF THE HONORABLE SILVIO O. CONTE BEFORE THE HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS, SUBCOMMITTEE ON WATER AND POWER RESOURCES, REGARDING THE GARRISON DIVERSION UNIT -- FEBRUARY 28, 1985

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

AS THE HOUSE OF REPRESENTATIVES' LEADING OPPONENT OF THE GARRISON DIVERSION PROJECT IN NORTH DAKOTA, I APPRECIATE HAVING THIS OPPORTUNITY TO SHARE WITH YOU MY VIEWS ON THE RECOMMENDATIONS OF THE GARRISON DIVERSION UNIT COMMISSION, AND ON THE LEGISLATION NEEDED TO IMPLEMENT THOSE RECOMMENDATIONS.

WITH THE CHAIRMAN'S PERMISSION, I WOULD LIKE TO SUMMARIZE MY VIEWS AT THIS TIME AND SUBMIT A MORE DETAILED STATEMENT FOR THE RECORD.

LET ME BEGIN BY POINTING OUT THAT SINCE DECEMBER OF 1982, WHEN THE HOUSE OF REPRESENTATIVES VOTED BY A 100 VOTE MARGIN TO ELIMINATE FUNDING FOR THE GARRISON PROJECT, THE HOUSE HAS CONSISTENTLY ZERO-FUNDED THIS PROJECT. APPROPRIATIONS FOR GARRISON HAVE BEEN PROVIDED ONLY BECAUSE THE SENATE, BY EVER-DECLINING MARGINS, HAS VOTED TO CONTINUE THE PROJECT AND HAS PREVAILED IN THAT POSITION IN CONFERENCE.

I am proud to have been the leader of the fight against the currently authorized Garrison project, and am pleased that the continued opposition of the House of Representatives to this project helped create the climate that made possible the establishment of an independent Commission to review and attempt to resolve the ongoing controversy over the Garrison project. I also want the record to be clear that unless the significant changes in the Garrison project are implemented as recommended by the Commission, that I will continue my fight against this project. And I have every expectation that the majority of my House colleagues will join me in continuing to oppose funding for the Garrison project as it is currently authorized.

Mr. Chairman, you and the other members of the Committee are very familiar with the history, mandate, and recommendations of the Garrison Commission, so I will not repeat them here. But I do want to share with you my overall views on the Commission's work, and indicate my view of what needs to be done next.

Let me make clear at the outset that the Commission's recommendations clearly represent a compromise, and, as such, are far from perfect. They do, however, provide the basis for a project that will more effectively meet North Dakota's water resource development needs than did the "old" Garrison project, at lower cost, and with less environmental damage.

As originally conceived, the Garrison project would have flooded some 60,000 acres of prime prairie potholes; the Commission's plan would save some 43,000 of these acres from being flooded.

The original Garrison project would have flooded twelve national wildlife refuges; the Commission's plan would save seven of these.

Under the Commission's plan, two of the most critical wildlife areas -- Kraft Slough and the Lonetree Valley -- will be spared by not constructing the Lonetree or Taayer Reservoirs. In addition, the Commission's plan calls for wildlife mitigation on an acre-for-acre basis, rather than on the less effective "equivalence" approach previously recommended by the Bureau of Reclamation.

The Commission found that agricultural irrigation features of the project were not cost-justified, a fact that has become even more obvious in recent weeks. In recognition of this fact, the Commission has scaled back the amount of irrigation, and substituted needed municipal and industrial water supply features.

Finally, the Commission has recommended that no Missouri River waters be conveyed into the Hudson Bay watershed except in such a way that will be acceptable pursuant to consultations between Canada and the United States.

These are all important and significant improvements, and I strongly endorse them.

Because this was a compromise effort, I do have reservations about some features of the Commission's recommendations. Although the total cost of the project has been reduced, to approximately $1.1 billion, I believe that it may still be too high. I understand that North Dakota may have a proposal for an alternative M & I water supply approach that would be less expensive, and I would suggest that it receive full and fair consideration by the Committee.

I also have some reservations about the Commission's recommendations for the financing of the new project features out of Pick-Sloan power revenues, and the interest rate assumptions to be used for such repayment.

Nevertheless, we must recognize that this is a compromise plan, and that it is a significant improvement over the original 1965 project.

Let me take just a moment to comment on H.R. 1116, the implementing legislation drafted by the Bureau of Reclamation and introduced by the gentleman from North Dakota, Mr. Dorgan. First of all, let me say that Mr. Dorgan has been an able and worthy opponent on the Garrison issue, and a tireless and effective advocate of North Dakota's water resource development interests. I look forward to working with him, and with the Committee, to develop appropriate implementing legislation that will resolve the Garrison controversy once and for all.

As currently drafted, H.R. 1116 falls far short of what is needed. That bill simply grafts onto the 1965 authorization the M & I components of the Commission's report, without recognizing the many Commission recommendations that cut back on the Bureau's authority to construct some of the most environmentally objectionable features of this project. Such an approach, which would leave the Bureau of Reclamation with the discretion to build just about anything it wanted -- from the old project to the old project plus M & I, or the new project and anything in-between -- will not resolve the Garrison controversy.

I can not support any legislation that does not ensure that only a project consistent with the Commission's recommendations will be built. Our instructions to the Bureau must be absolutely clear on that point. I therefore recommend that the implementing legislation

- -- direct the Bureau and the Department to implement the Commission's findings and recommendations;
- -- make clear that the project features which the Commission recommended should not be built will not be built; and
- -- limit the Bureau and Department's discretion to those activities and project features recommended by the Commission.

I appreciate having had the opportunity to present these views to the Committee, and will be pleased to work with the Committee in any way I can to see that legislation -- which carefully and fairly implements the Commission's work and which we can all support -- is developed and passed by the House.

I have been pleased by how far we have come on this issue, and how close we seem to be to a resolution of it. I hope that we can rapidly bring this controversy to a close.

Thank you.

STATEMENT OF ROBERT N. BROADBENT, ASSISTANT SECRETARY - WATER AND SCIENCE BEFORE THE HOUSE SUBCOMMITTEE ON WATER AND POWER RESOURCES

February 28, 1985

Mr. Chairman, it is a pleasure to have this opportunity to appear before your Committee and provide you with the Department of the Interior's views on recommendations of the Garrison Diversion Unit Commission. In section 207 of Public Law 98-360, enacted last session, the Congress directed that a Secretarial commission be appointed to review the contemporary water development needs of North Dakota and propose alternatives that will lead to the early resolution of problems with the Garrison Diversion Unit.

We would first like to take a moment to recognize the considerable effort that was put forth by Governor Treen and the other members of the Commission and their staff. The willingness and ability to meet a difficult deadline, with time to spare, despite severe conditions, is truely commendable. You and your colleagues in Congress are also to be commended for creating the commission to resolve this very difficult problem.

We support the work of the Commission and hope that the recommendations the Commission adopted will lead to the resolution of the water needs of the State of North Dakota.

The law establishing the Commission directs the Secretary of the Interior "to implement the recommendations of the Commission report consistent with existing authority." The Secretary has identified those recommendations within his existing authority in a Secretarial decision document. We would like to submit a copy of that decision document for the record. The Secretary has directed the Bureau of Reclamation to proceed with recommendations to continue design, construction, and operation of all features common to both the plan authorized in 1965 and the Commission plan; to initiate preconstruction and design activities on other features of the Commission plan and to initiate actions necessary to satisfy the National Environmental Policy Act (NEPA) on any changes to that plan. The action items the Bureau has been directed to initiate include:

- activities to freshen Lake Audubon and the McClusky canal;
- clean up the Lonetree dam construction area, finish land acquisition, and seed idle cropland in the Lonetree Reservoir area;
- initiate work on the proposed Sykeston Canal, begin design data collection, consult with local landowners, and design a supervisory control system;
- reinitiate work on the New Rockford Canal and the West Oakes Test Area;

BEST COPY AVAILABLE

- initiate work on the New Rockford Irrigation area, the Harvey Pumping Irrigation area, the Glover Reservoir, and James River Stabiliation work;
- analyze design modifications to the Principal Supply Works control system;
- initiate NEPA documentation on items not previously covered;
- continue Canadian consultations;
- continue acquisition of mitigation lands, including Kraft Slough;
- refine the recreation plan and initiate site-specific plans in cooperation with the State of North Dakota; and
- initiate analysis of cultural resources impacts of project features.

The Secretary has also directed the Bureau of Indian Affairs to set up a five-member commission to further study and make recommendations on Indian issues identified by the Garrison Commission.

Other recommendations of the Commission, however, are not within the Secretary's existing authority to implement. These recommendations were incorporated into a drafting service bill we transmitted to the Congress pursuant to the recommendation of the Commission. The recommendations requiring Congressional authorization are:

- the non-reimbursability of costs attributable to abandoned features;
- the non-reimbursability of costs of features to meet international committments;
- the authorization of irrigation development on Indian lands;
- the provision for Pick-Sloan Missouri River Basin power to be used to operate the municipal, rural and industrial (MR&I) water systems;
- the provision for power revenues to assist in the repayment of MR&I costs;
- the inclusion of Indian M&I systems in the overall MR&I system;
- the provision to explore the establishment of a Binational Resource Development Program.

The Department of the Interior is moving ahead in those areas of the Commission recommendations where we believe that we have adequate authority. We believe this is an indication that we agree with the spirit of the recommendations and the work of the Commission. However, we also believe several of these major recommendations could be either policy setting or precendential in nature. The Administration is actively engaged in reviewing these issues. We would be happy to provide the Committee with a written statement at the appropriate time.

I have appreciated this opportunity to appear before you and would be pleased to answer any questions you might have.

United States Department of the Interior
BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

January 15, 1985

IN REPLY REFER TO: 102

ACTION/DECISION MEMORANDUM

To: Secretary of the Interior

Through: Assistant Secretary - Water and Science Bob Broadbent

From: Acting Commissioner of Reclamation Robert A. Olson

Subject: Garrison Commission Final Report

Issue: Implementation of the Garrison Commission Recommendations

Discussion:

The Garrison Diversion Unit Commission submitted its final report to the Secretary on December 20, 1984. According to P.L. 98-360, the Energy and Water Development Appropriations of 1985, the Secretary is required to implement the Commission's recommendations consistent with existing authority. The language has been interpreted by the Solicitor to mean that the Secretary is required to implement those recommendations within the Secretary's authority and to propose legislation for those recommendations not_covered by existing authorities.

A Departmental task force has been established to prepare options for implementation of the Commission's report. Attached is a comprehensive Secretarial Issue Document with analyses of each of the specific recommendations made by the Commission. These analyses include, where appropriate, findings of the Solicitor related to your authority to implement specific recommendations. In those cases where the Solicitor found a particular recommendation to be inconsistent with existing authority, we recommend that the Secretary propose authorizing legislation.

In addition to the Secretarial Issue Document, the task force identified specific actions that should be implemented at once. The urgency is due to the need to act on contractual obligations carrying over from FY 1984. To accommodate a decision to implement the Commission's plan and propose legislation necessary to ensure your authority to do so, the Bureau of Reclamation has also prepared the following:

Options:

Below is a brief summary of the Commission's recommendations, divided into 10 general areas, together with options available to the Secretary in implementing those recommendations. The summary highlights those options with significant policy choices. Table A provides a complete list of the Garrison Commission recommendations with the recommended option. The attached Secretarial Issue Document provides a comprehensive discussion of the Commission recommendations, Secretarial options, and recommended options.

(1) Implementation - The Commission has recommended that the Secretary implement those Commission recommendations consistent with his existing authority. If the Secretary does not have the authority to implement the recommendations, the Secretary is to submit legislation to Congress seeking authority for that particular recommendation.

(2) Budget/Financing - The Garrison Commission recommended that those facilities deferred (e.g., Lonetree Dam and Reservoir) should be considered "as a reasonable cost of satisfying the Federal obligation to the State of North Dakota and therefore will be non-reimbursable" (emphasis added). The Solicitor's Office believes this recommendation is not consistent with existing authority. Legislation would be drafted and submitted to Congress (see Commission recommendations Nos. 12-14). The Garrison Commission also recommended (No. 17) that the master contract with the Garrison Diversion Conservancy District be renegotiated upon authorization of Commission Plan.

(3) Irrigation - The Commission recommended specific irrigation areas totaling 130,940 acres, including potential development of 17,580 acres of Indian lands. Secretarial options are limited to the timing and nature of using the James River as a conveyance facility.

(4) Municipal, Rural, and Industrial Service - The Commission recommended a statewide municipal water supply system (serving approximately 130 communities) with capital repayment to be made by the Pick-Sloan power users. Congressional authorization would be required for power to be used to assist M&I repayment and, as a result, the Secretary is required to submit legislation enabling this. Congressional authorization is also required for the non-reimbursable M&I release to the Sheyenne River. The State of North Dakota submitted an alternative financing scheme for M&I to the Commission after the Commission had adopted its Final Report. The Secretary has the option to direct the Bureau of Reclamation to study this optional financing scheme.

(5) Mitigation - The Commission recommendations are consistent with existing authority, and the Fish and Wildlife Service and Reclamation concur with the implementation of the recommendations. The only Secretarial option is whether or not to implement mitigation concurrently with construction or defer action until a comprehensive mitigation plan is developed.

(6) NEPA Compliance - These recommendations allow no Secretarial options. Reclamation has developed a schedule to complete the EIS within 18 months utilizing the recommended Environmental Impact Task Force.

(7) Water Quality - No Secretarial option except whether to defer action on the dilution of lower James River flows into South Dakota (Nos. 83, 84). The early action program includes the water quality modeling work to evaluate the feasibility of these recommendations.

(8) Indian Related Issues - Key options include:

- Whether BIA or BOR should be lead agency in conducting irrigation and M&I feasibility studies;

- How to resolve with the Corps of Engineers past problems created by the construction of Lakes Sakakawea and Oahe;
- Whether to introduce legislation requesting Congressional appropriations (BIA suggested $150 million) for implementing the 5-member Indian Commission.

(9) Recreation - No Secretarial options; the Commission recommendations are consistent with existing Reclamation and State of North Dakota policies.

(10) International Concerns - The Commission recommended that consultations with Canada continue. The principal Secretarial option is found in the recommendations (Nos. 113, 114) to conduct a comprehensive baseline inventory of biota in the Hudson Bay drainage (both North Dakota and Canada). Another option is whether a Binational Resource Development Program (Nos. 118, 119) should be included with the Canadian consultations.

Recommendations:

The recommended implementation actions are broken into three broad areas: (1) those actions consistent with the Secretary's statutory authorities (early action program); (2) those actions needing Congressional authorization (in which the Secretary must propose the legislation); and (3) the budgetary resources needed to implement the Commission's recommendations.

(1) Early Action Program

The early action program is described in detail in Section V of the attached SID.

The Bureau of Indian Affairs has one action item, viz., the appointment by January 31, 1985, of a five-member Commissior to examine a broad range of issues related to the Fort Berthold, Standing Rock, and Fort Totten Reservations. BIA has estimated a budget for this 9-month Commission at $200,000. Funding would come from the Bureau of Reclamation Garrison FY 85 appropriations.

The Bureau of Reclamation has identified 15 activities for immediate implementation.

The required decisions of the early action program are whether or not the Secretary should direct the Bureau of Reclamation to:

(1) proceed with recommendations to continue design, construction, and operation of all features common to the authorized project and the Commission recommendations;

(2) initiate preconstruction and design activities on features of the Commission recommendations that are not common to the authorized project but do not need Congressional authorization (e.g., Sykeston Canal);

(3) initiate activities necessary to satisfy the National Environmental Policy Act (NEPA) not currently documented in the Garrison Diversion Unit Environmental Impact Statements.

Approximately $42 million would be required in FY 85 to implement these activities (Garrison FY 85 appropriations were $53.58 million). The detailed budget is described in Section V (Budget Analysis) of the attached Secretarial Issue Document. The Office of Management and Budget has limited the availability of funds for the Garrison Diversion Unit to $9 million through the apportionment process.

(2) Legislation

Commission recommendations requiring Congressional authorization are summarized below:

* Municipal, Rural, and Industrial water supply financing recommendations utilizing Pick-Sloan power revenues; project power; and non-reimbursability of Sheyenne River release facilities.

* Binational Resource Development Program.

* Tribal water development under Garrison Diversion Unit authorization.

* Non-reimbursability of sunk costs of supply works not used (e.g. Lonetree).

Legislative Counsel should draft legislation for submission to Congress by February 15, 1985. Legislative Counsel should coordinate on bill drafting with Reclamation, FWS, Indian Affairs, and Assistant Secretary for Policy, Budget, and Administration.

(3) Budget

A summary of the estimated budget for the Commission recommendations is presented on Table B.

Construction cost estimates. The Bureau of Reclamation has identified significant differences in the cost estimates with the Commission's Final Report.

	($ Millions)	
	Commission	BOR
Supply works (including Sykeston)	$28.0	$61.2
Glover Reservoir	24.5	27.0
M,R,&I System	401.0	500.0
Devils Lake Outlet	—	15.0

In all cases, the Bureau of Reclamation cautions that all these estimates are very preliminary (pre-appraisal grade) and will likely change as more detailed designs are prepared.

The cost ceiling for the 1965 authorized project is indexed at $1,096,108,000 (October 1985). Pursuant to law, Congress should be notified. It should be noted that a significant portion of the cost of the Commission's recommendations (M,R,&I) also requires Congressional authorization. The cost ceiling, if exceeded, could be addressed in that authorization process.

OMB has limited the availability of funds for the entire fiscal year 1985 to $9 million, although Congress appropriated approximately $54 million. A formal request will have to be made to OMB to release the funds necessary to implement the Garrison Commission recommendations. Attached is a letter to OMB Director David Stockman requesting the release of the Garrison appropriation funds.

Approve ✓______________ Disapprove______________

____
Secretary of the Interior

____
Date

Attachments

Prepared By: Richard Atwater
ext: 343-4115

TABLE A

LIST OF OPTIONS

Issue Category	Garrison Commission Recommendations	Option Recommended
(1) Implementation		
	1	b
	2/3	a
	4/5*	a
	6	a
	7/8/9	a
	10	b
	11	none
(2) Budget/Financing		
	12/13/14*	a
	15/16*	none
	17	b
(3) Irrigation		
	18/19	none
	20	b
	21/22	none
	23	none
	24/25/26/27	none
	28/29	none
(4) Municipal, Rural, and Industrial		
	30/31/32/33/34/35*	b
	36*	none
	37/38/39/40/41*	b
	42/43/44/45*	none
	46	none
(5) Mitigation and Enhancement		
	47/48/49/50	none
	51	none
	52	none
	53	none
	54/55	none
	56/57/58/59/60/61	none
	62	none
	63/64/65/66/67/68/69/70	a
	71	none
	72/73	none
(6) NEPA Compliance		
	74/75/76/77	none
	78	none
	79	none

Note: *Congressional authorization required to fully implement these recommendations.

TABLE A (continued)

LIST OF OPTIONS

Issue Category	Garrison Commission Recommendations	Option Recommended
(7) Water Quality	80/81	none
	82	none
	83/84	b
	85	none
	86/87	none
(8) Indian Related Issues	88/89	b
	90	none
	91	none
	92*	none
	93*	b
	94	b
	95	none
	96	none
	97	none
	98/99	none
(9) Recreation	100/101	none
(10) International Concerns	102	none
	103	none
	104	none
	105/106/107	none
	108/109/110/111/112	b
	113/114*	a and b
	115	none
	116	none
	117	none
	118/119*	b
	120	none

Note: *Congressional authorization required to fully implement these recommendations.

TABLE 5
GARRISON DIVERSION UNIT (P-SMBP)
SCHEDULE OF CONSTRUCTION PROGRAM FISCAL YEAR 1985 AND FISCAL YEAR 1986

Project Item	Estimated Total	FY 1985 Program	FY 1986 Estimate
Completed Work 1/	$ 3,727,379	$ ---	$ ---
Construction Program			
Principal Supply Works			
Snake Creek Pumping Plant	21,000,000	150,000	100,000
McClusky Canal	113,400,000	6,970,000	3,760,000
Sykeston Canal 2/	43,300,000	600,000	1,100,000
McClusky Canalside Irrigation 2/	320,000	---	10,000
Lonetree Reservoir and Dams 6/	51,150,000	7,250,000	3,370,000
Garrison Commission	1,100,000	817,000	---
Souris Section			
*Velva Canal	81,730,000	---	---
*Karlsruhe Irrigation Facilities	27,110,000	---	---
*Middle Souris Irrigation Facilities 3/	234,270,000	---	---
Oakes Section			
Oakes (West Side) Test Area	28,210,000	4,330,000	4,910,000
West Side Irrigation Facilities	34,220,000	1,400,000	2,100,000
Taayer Reservoir, Dike, and Pumping Plant 7/	866,000	---	---
Taayer Alternative Site 2/ 4/	24,500,000	20,000	2,000,000
Oakes Canal 2/	2,850,000	30,000	30,000
*East Side Irrigation Facilities	74,930,000	---	---
LaMoure Section			
Irrigation Facilities	36,320,000	750,000	1,020,000
Central North Dakota Section			
New Rockford Canal	62,470,000	5,207,000	11,330,000
New Rockford Canalside Irrigation 2/	100,000	---	2,000
James River Feeder Canal	2,380,000	240,000	1,050,000

* Authorized features not in Commission's Plan.

143.

TABLE B(cont.)

GARRISON DIVERSION UNIT .MBP)
SCHEDULE OF CONSTRUCTION PROGRAM FISCAL YEAR 1985 AND FISCAL YEAR 1986

Project Item	Estimated Total	FY 1985 Program	FY 1986 Estimate
Completed Work			
Construction Program (Continued)			
Central North Dakota Section (Continued)			
James River Improvement	18,990,000	1,950,000	1,080,000
'Warwick-McVille Irrigation Facilities	126,440,000	---	---
Devils Lake and Stump Lake Canals	14,830,000	---	---
New Rockford Irrigation Facilities	53,290,000	200,000	1,768,000
New Rockford Extension Irrigation Facilities 2/. .	71,530,000	50,000	50,000
Lincoln Valley Irrigation Facilities	20,290,000	250,000	500,000
Turtle Lake Irrigation Facilities 2/	32,600,000	---	200,000
Harvey Pumping Irrigation Facilities 2/.	5,070,000	50,000	50,000
Indian Missouri River Pumping Irrigation 2/			
Lucky Mound	26,400,000	20,000	250,000
Upper Six Mile Creek	24,000,000	20,000	200,000
Fort Yates	11,000,000	10,000	100,000
Commission	200,000	200,000	---
Domestic and Rural Water 2/ 5/			
Municipal, Industrial and Rural Water Systems . . .	401,200,000	---	200,000
General Facilities			
Permanent Operating Facilities	28,160,000	1,350,000	350,000
Fish and Wildlife Facilities	126,330,000	8,960,000	5,200,000
Recreation Facilities	14,150,000	550,000	510,000

' Authorized feature not in Commission's Plan.

TABLE B (cont.)
GARRISON DIVERSION UNIT (P-SMBP)
SCHEDULE OF CONSTRUCTION PROGRAM FISCAL YEAR 1985 AND FISCAL YEAR 1986

Project Item	Estimated Total	FY 1985 Program	FY 1986 Estimate
ompleted Work (Continued)			
onstruction Program (Continued)			
eneral Facilities (Continued)			
Temporary Camps	500,000	---	---
Service Facilities, Depreciation, and Salvage . . .	268,701	650,000	---
Total Construction Costs	$1,817,202,080	$41,994,000	$41,240,000
Other Project Costs	11,497,886	6,000	60,000
Total Costs	$1,828,699,966	$42,000,000	$41,300,000
Total Costs for Authorized Features Not In Commission's Plan	-$ 544,480,000		
Total Cost - Commission's Plan	$1,284,219,966	$42,000,000	$41,300,000

1/ Jamestown Dam and Reservoir.
2/ Recommended by Garrison Commission. Estimated costs are included in totals.
3/ Costs for Garrison Commission and Indian Commission were included in this feature for budget purposes. They have been removed and are shown separately for this analysis.
4/ Document reflects Commission's estimate. Bureau of Reclamation estimate is $27,000,000.
5/ Document reflects Commission's estimate. Bureau of Reclamation estimate is $500,000,000.
6/ Funds required in FY85 and FY86 and the total cost estimate of $51,150,000 reflect implementation of the Commission's Plan and specifically cover sunk costs, site restoration, and acquisition of remaining land.
7/ Sunk costs to September 30, 19[illegible].

THE SECRETARY OF THE INTERIOR
WASHINGTON

January 18, 1985

Honorable David A. Stockman
Director, Office of Management
and Budget
Washington, D. C. 20503

Dear Dave:

It has come to my attention that your staff has apportioned funds for the Bureau of Reclamation's Construction Program account in a manner which they believe limits the availability of 1985 appropriated funds for the Garrison Diversion Unit to $9 million. Your staff has indicated that reapportionment will be necessary in order to obligate more than $9 million on the Garrison project. The footnote on the apportionment document which purports to establish this limitation is not clear as to its effect. Further, I am advised by the Department's Office of the Solicitor that a footnote to an apportionment document has questionable legal standing. However, I am enclosing the appropriate documents to reapportion these funds in order to remove any possible restriction on the obligation of funds for the Garrison Unit after December 31, 1984, when the statutory restriction on the use of appropriations expired.

As you may know, the Garrison Commission delivered its report to me on December 20, 1984. Its recommendations have been studied by my staff, who gave careful consideration to the statutory requirements imposed on me by Section 207 of Public Law 98-360, as well as technical, economic and budgetary concerns. Based on this review, I have directed the Bureau of Reclamation to proceed to design, construct and operate all features common to the currently authorized project and the Commission's recommendations. This directive includes programmatic activities which should go forward in the remaining eight months of fiscal year 1985. The second enclosure outlines those activities and the budgetary resources required to implement them. I would be happy to discuss with you in more detail my plan for responding to the Commission's recommendations. In the meantime, I request that you withdraw any restriction on the obligation of 1985 appropriations for the Garrison Diversion Unit so that the Department will be able to proceed with its plan to implement those elements of the Garrison Commission's recommendations which are currently authorized.

Sincerely,

Bill Clark

William Clark

Enclosures

SECRETARIAL ISSUE DOCUMENT

IMPLEMENTATION OF THE GARRISON COMMISSION RECOMMENDATIONS

JANUARY 1985

SECRETARIAL ISSUE DOCUMENT

Implementation of Garrison Commission Recommendations

I. REQUIRED DECISIONS

The Secretary must decide:

(1) Whether or not legislation is necessary to implement any part of the Garrison Diversion Unit Commission recommendations;

(2) Whether or not this legislation should be proposed by the Commission-recommended date of February 15, 1985;

(3) Whether or not to immediately begin construction of features deemed to be already authorized; and

(4) How to implement the specific recommendations of the Garrison Commission.

II. FORCING EVENTS

The Garrison Diversion Unit Commission was terminated December 31, 1984. The Commission adopted recommendations regarding the completion of the Garrison Diversion Unit. The legislation establishing the Commission (P.L. 98-360) states that the Secretary is directed to implement those recommendations consistent with existing authority. Congress also further directed that:

> "Funds may be expended or committed for expenditure after such date (December 31, 1984) for construction of the Garrison Diversion Unit - (1) in accordance with the recommendations of the Secretarial Commission".

OMB has limited the availability of funds for the entire year to $9 million through the apportionment process. A formal request will have to be made to OMB to release the funds necessary to implement the Garrison Commission's recommendations in FY 85 as required by law.

III. BACKGROUND

The Pick-Sloan Missouri Basin Program was initially authorized by the Flood Control Act of December 22, 1944, which approved the general comprehensive plan for the conservation, control, and use of water resources in the entire Missouri River Basin. The beneficial uses of these water resources include flood control, aids to navigation, irrigation of over 3 million acres of new land, power generation from plants with a total installed capacity of about 2.5 million kilowatts, municipal and industrial water supplies, stream pollution abatement, sediment control, preservation and enhancement of fish and wildlife, and creation of recreation opportunities.

As part of the Pick-Sloan Missouri Basin Program, more than 550,000 acres of prime farmland in North Dakota was permanently flooded by construction of Garrison and Oahe Dams. These dams provide flood control, river navigation, hydropower generation, and municipal and industrial water for downstream States.

Benefits to the downstream States have been significant. Flood damage in excess of $1.7 billion has been prevented. Stabilized navigation has been established between Sioux City, Iowa, and New Orleans, Louisiana. Maintenance of minimum flows has provided necessary quantities of water for municipal and industrial use and has allowed increased commercial and industrial development in the floodplain area. Hydropower produced is mainly exported to other States.

In the 40 years since passage of the Act, the flood control and navigation objectives originally envisioned in the plan have been essentially met. Hydropower has been developed at 214 percent of the capability identified in 1944, and there is potential for additional capacity to meet future energy needs. However, development of water supplies for irrigation and domestic use as intended by the plan has not occurred. The Pick-Sloan Plan identified 137 irrigation units that would have provided water to nearly 5 million acres of previously undeveloped land. Only 8 percent of those lands are receiving service. Water is being delivered to less than 1 percent of the acreages identified for irrigation in North Dakota.

The 1944 Flood Control Act identified 1,449,950 acres in North Dakota which were to receive irrigation benefits. The Bureau of Reclamation published a feasibility report on a 1,007,000-acre Garrison Diversion Unit in 1957, which became House Document 325. Between 1957 and 1965, the project was scaled down twice. In 1965 (P.L. 89-108, 79 Stat. 433), Congress authorized construction of the Initial Stage of the Garrison Diversion Unit to irrigate 250,000 acres and to provide such other benefits as municipal and industrial water delivery systems, recreation areas, wildlife habitat enhancement, and flood control.

However, opposition to the Garrison Unit from Canada over possible effects on Canadian commercial and sport fisheries, and from environmental groups over potential impacts on waterfowl production and wetlands, resulted in delays to the project.

In early 1984, the principle opponent of the Garrison Diversion Unit, the National Audubon Society, proposed a compromise. Audubon acknowledged (for the first time) the entitlement of North Dakota to compensation for acreage inundated by Pick-Sloan projects, and stated its willingness to work with the State to revise the 250,000-acre project. As a result of this, the North Dakota Congressional delegation was able to take compromise legislation to Congress with the full support of both sides. That compromise was enacted in P.L. 98-360, Energy and Water Development Appropriations for FY 1985. In Sec. 207 of that act, Congress directed that a 12-member Commission be appointed by the Secretary of the Interior and report its conclusions by December 31, 1984. Any recommendation of the Commission had to be approved by eight or more of the 12 members.

At the time the Garrison Diversion Unit Commission was established, 29 percent of the authorized work had been accomplished (1984 dollars). The following principle supply works were complete: Snake Creek Pumping Plant, Jamestown Reservoir, and McClusky Canal. Lonetree Dam and Dikes, New Rockford Canal, Oakes Pumping Plant, and the Oakes Test Area Distribution and Drainage Systems were nearing completion.

In accordance with P.L. 98-360, all construction contracts were suspended as of October 1, 1984, until January 1, 1985, pending the Commission's recommendations. On January 1, Federal responsibility for the project reverted to the Secretary of the Interior and a total of $53.58 million (the current appropriation for this year) less monies expended for the Commission and amounts allocated to underfinancing, became available for the project. OMB limited the availability of funds to $9 million pending completion of the Commission's work and subject to the submission of a reapportionment request.

The Garrison Commission was appointed August 11, 1984. It met from August 30 through December 20, 1984, holding public hearings in Bismarck, Fargo, and Minot, North Dakota. At its final business meeting, held December 14 in Minot, the Commission adopted a Final Report by a vote of 11-1. The Report was presented to the Secretary and submitted to the Senate Committees on Appopriations and Energy and Natural Resources and the House Committees on Appropriations and Interior and Insular Affairs on December 20, 1984.

IV. ANALYSIS OF COMMISSION RECOMMENDATION

A. SUMMARY OF RECOMMENDATIONS

The Garrison Diversion Unit Commission recommended a plan that would provide irrigation service to 130,940 acres, and potential municipal water systems to serve up to 376,000 people in 130 communities. The principal supply works would include Snake Creek Pumping Plant, McClusky Canal, Sykeston Canal, New Rockford Canal, James River Feeder Canal, Glover Reservoir, and Oakes Pumping Plant. The Plan deleted Lonetree Dam and Reservoir and Taayer Reservoir.

Irrigation repayment would be subject to Reclamation law. The municipal water system capital cost repayment would be covered partly by Pick-Sloan power revenues, and partly by repayment by users at 3-1/8% interest. O&M costs would be covered by users. The municipal delivery system to communities in the Hudson Bay drainage would be paid entirely by appropriations.

Irrigation would be entirely in the Missouri River Basin; the Commission recommends that consultations with Canada on all areas of concern be continued.

Of the 130,940 acres, 17,580 acres are recommended for development on the Ft. Berthold and Standing Rock Indian Reservations, pending feasibility studies and sufficient interest on the part of the Indians. Development would be funded under Bureau of Reclamation appropriations but repayment would be made pursuant to the Leavitt Act.

Mitigation would be acre-for-acre. - Lands in the Lonetree site would be acquired by the U.S. Government and managed by the State for wildlife purposes. The Commission recommends that NEPA compliance be considered complete for features already covered by NEPA documents and recommends that programmatic environmental studies for other areas be completed within 18 months of Congressional action and that site-specific environmental studies be completed prior to initiation of construction.

Several task forces or advisory councils would be set up: for NEPA compliance questions, for the mitigation program, and for consideration of Indian compensation issues. Several areas were recommended for further research, including aquifer recharge in the Oakes area, pathogens in the Hudson drainage, satellite ground water wellfields, irrigability of Indian lands, and an outlet for stabilization of Devils Lake.

The total cost of the project, according to the Commission Report, is $1,119,353,000, with an estimated annual O&M cost of $15,415,000. (These figures are under review by the Bureau of Reclamation.)

The Commission recommends that the Secretary introduce legislation to authorize areas he feels require Congressional action by February 15, 1985. If action is not taken within two years (by adjournment of the 99th Congress) the Commission recommends that the 250,000-acre authorized project go forward.

B. ISSUE ANALYSIS, POLICY OPTIONS, AND RECOMMENDATIONS

1. IMPLEMENTATION

Commission Recommendation

1. The plan described in Appendix D, which is incorporated as a part of this recommendation, should be implemented in place of the plans set out by the Bureau of Reclamation and described as the 250,000-Acre Initial Stage of the Garrison Diversion Unit, as authorized in 1965 or the original project authorization in 1944. (16)*

Discussion

It is the opinion of Garrison Commission staff that the section of the Report proper entitled "Conclusions and Recommendations" is controlling wherever inconsistencies arise. However, Appendix D, the "Detailed Commission Plan," contains several areas cast as "recommendations" that are not mentioned in the Report section. This quote implies that these areas should be considered part of the Plan, and, while the Department would have a case for ignoring them as not legitimate recommendations of the Commission, they are part of the public record and will most likely be viewed as recommendations that the Secretary must implement.

Secretarial Options

a. Implement all Commission recommendations wherever they appear in the Report.

b. Implement only those recommendations consistent with existing authority and submit legislation requesting authority for others.

c. Do not submit legislation on unauthorized features.

Recommendation: Option b.

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* Numbers in parentheses refer to items in Appendix B of this report, the "Detailed List of Commission's Recommendations." Numbers preceded by "D" refer to recommendations found in Appendix D of the Commission's Final Report.

Commission Recommendations

2. The Secretary of the Interior should proceed immediately to construct those portions of the Commission Plan that are a part of the 1965 authorized Initial Phase. (22, D44)

3. The Secretary of the Interior should proceed immediately with advance planning actions leading to preconstruction reports, NEPA compliance, final designs, and prompt implementation of the remaining features of the Commission Plan, in close coordination with the State of North Dakota. (23)

Discussion

North Dakota and the Bureau of Reclamation both recommend that the Secretary resume construction on existing authorized features. Further, the Bureau also recommends proceeding immediately with NEPA compliance and advance planning of other features of the Commission's Plan, should the Secretary decide to propose legislation authorizing those features.

The Solicitor's Office believes that, subject to the availability of appropriations and NEPA compliance, this is consistent with existing authority and therefore the Secretary is required to implement it.

Secretarial Options

a. Implement recommendations. -

b. Defer construction pending congressional authorization of any or all portions of Commission plan deemed not consistent with existing authority.

c. Defer construction pending completion of feasibility studies on those portions of the Commission plan deemed to require them.

Recommendation: Options a.

Commission Recommendations

4. The Secretary should propose enabling legislation to Congress by February 15, 1985, or as soon thereafter as practicable, to assure authority to implement any part of the Commission Plan which is determined to be beyond current authorization. (21, D-45)

5. If, by the *sine die* adjournment of the 99th Congress, legislation authorizing the Secretary to implement the Commission Plan has not been enacted into law, the Commission recommends that its plan and all related recommendations be dissolved and that the Initial Phase be implemented within the discretion of the Secretary. (22, D-46)

Discussion

Should the Secretary decide to propose legislation, there is no reason not to abide by this recommendation, although the Solicitor's Office advises that the authority of the Commission to make such recommendations is questionable.

Secretarial Options

a. Introduce legislation by February 15, 1985.

b. Introduce legislation whenever the Secretary considers appropriate.

c. Do not introduce legislation because recommendations No. 4 and 5 exceed the Commission's authority. Direct Reclamation to undertake reformulation of features of the project not currently authorized.

Recommendation: Option a.

Commission Recommendation

6. The Secretary should urge the State to determine an appropriate reallocation of funding responsibilities among its citizens through a special committee of appropriate composition. The State of North Dakota should review the organizational structure of its political subunits that exist in North Dakota for implementing the Garrison Diversion Unit in order to make equitable adjustments consistent with implementation of the Commission Plan. (87)

Discussion

The State has begun to prepare its recommendations for implementation of the Commission Plan. The Secretary might direct the Bureau of Reclamation to be of assistance in this process where possible and if requested.

Secretarial Options

a. Implement recommendation, and direct Reclamation to provide technical assistance to the State.

b. Implement recommendation and ask the Advisory Council on Intergovernmental Relations to assist the State, upon request, in evaluating the funding requirements of the Commission Plan.

Recommendation: Option a.

Commission Recommendations

7. Lonetree Dam should not be completed at this time and the Sykeston Canal should be constructed as a functional replacement. (44)

8. Construction of Lonetree Dam should be deferred pending a determination by the Secretary of the Interior consisting of a demonstration of need and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought. (45)

9. Land acquisition should be completed at the Lonetree Reservoir site. (46)

Discussion

Reclamation indicates that major modification to existing designs will be required to make this change. In addition to the Sykeston Canal, there will be a need for additional check structures and a sophisticated (and expensive) control system to regulate flow in the absence of Lonetree. Further, existing structures in the McClusky Canal will require modification to regulate small quantities of water and accommodate winter operations. The Lonetree site will have to be mothballed and kept in such condition as to allow rejuvenation at a later date. This will create additional expense. Should it be decided to build Lonetree in the future, new appropriations will have to be sought (although authorizing legislation will not be necessary), and the Department will have to justify duplication of facilities (Sykeston and Lonetree) as well as the sunk costs of Sykeston Canal.

Inclusion of this canal as part of the main supply system will cause a 3- to 4-year delay in the availability of Missouri River water to the James River Basin. Design data collection and other work necessary for design should proceed as soon as possible. Contacts and meetings with landowners should be scheduled as early in the process as possible. Depending upon the final location of the canal, landowner reaction may be extremely adverse. Reclamation estimates that NEPA compliance could be complete in 1985, construction initiated by April 1986, and the feature complete by FY 1990.

The Solicitor's Office believes that implementation of this recommendation is consistent with existing authority. TIA is concerned that construction of Lonetree is linked to international negotiations, believing that such recommendations exceeded the Commission's authority.

Secretarial Options

a. Implement recommendations and direct Reclamation to execute contracts to mothball construction at the Lonetree site and complete land acquisition; begin preconstruction activities on Sykeston, and defer study of demonstration of need for Lonetree.

b. Option a., but direct that study be initiated immediately upon demonstration of need for Lonetree

Recommendation: Option a.

Commission Recommendation

10. The first phase (17,000 acre-feet) of the Glover Reservoir should be included as a feature of the plan in lieu of Taayer Reservoir for reregulation of flows along the lower James River. The Bureau of Reclamation should enter into a memorandum of agreement with the State of North Dakota for State construction of the first phase of Glover Reservoir using Garrison Diversion Unit appropriations. (51)

Discussion

In testimony before the Commission, North Dakota indicated that it is willing to design and construct Glover Dam and Reservoir with Federal funding. Such an arrangement would require specific legislative authority. The Commission Report estimate of $24.5 million is probably low.

The Solicitor's Office believes construction of Glover is consistent with existing authority.

Secretarial Options

a. Implement recommendation.

b. Implement recommendation with the proviso that Glover be built by Reclamation if agreement cannot be reached with the State.

Recommendation: Option b.

Commission Recommendation

11. The Secretary should promptly encourage initiation of congressional oversight hearings on Indian water rights in the Missouri River Basin. (73) *(See also recommendation No. 98)

Discussion

The Secretary is authorized to encourage such hearings.

Secretarial Options

None.

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* "See" and "see also" references to recommendations in this section (IV B).

2. BUDGET/FINANCING

Commission Recommendations

12. Any investment related to full design capacities of features that are not employed in the Commission Plan shall be absorbed as a reasonable cost of satisfying the Federal obligation to the State of North Dakota and therefore will be nonreimbursable. (77)

13. If the full capacities of those project features are used in some future expansion of the project, those nonreimbursable costs should be reassigned to purposes for which the features are used. (78)

14. **Of the $213,370,000 sunk costs, $35,920,000 are considered to be abandoned.** (D-10)

Discussion

Commission staff estimated sunk costs at $213,370,000, of which the Commission considered $35,920,000 abandoned and therefore nonreimbursable. The Bureau of Reclamation is reviewing these figures and the $35 million estimate may be too low. Absorbing the costs as non-reimbursable is not consistent with existing authority and will require legislative approval.

Secretarial Options

None.

**Double asterisks set off recommendations found only in Appendix D of the Commission's Report.

Commission Recommendations

15. The originally authorized 3-1/8 percent discount rate will be used for all project purposes including repayment by water users of municipal, rural, and industrial water systems. (18)

16. **Of the total capital costs, $854 million would be repaid by power consumers, $44 million by irrigators, $41 million by municipal users, and $16 million would be repaid from other sources. Nonreimbursable costs totaling $164 million include those for abandoned features, flood control, 25 percent of fish and wildlife enhancement costs, $76 million of construction costs, Indian irrigation development for which repayment may be deferred under the Leavitt Act, and costs associated with protecting the quality of water entering the Hudson Bay drainage pursuant to the Boundary Waters Treaty of 1909.** (D-9)

Discussion

The legislation establishing the Commission required use of the 3-1/8 percent rate. However, in the case of repayment of the M&I systems, Pick-Sloan power revenues, without interest, are recommended to cover the majority of the construction costs. (See Section IV, No. 38.)

Projected cost for construction of the entire M&I system is over $401 million (this assumes all communities are willing to participate). The Commission expects M&I users to cover only $41 million of that, leaving $360 million to be covered by power users. Garrison Commission staff believes such costs would not necessitate raising power rates, because unused irrigation power (due to the halving of the irrigation area) would be transferred to the M&I function. The Commission also assumes that M&I power users are identical to erstwhile irrigation power users.

The Solicitor's Office has determined that using power revenues to repay costs allocated to the M&I function would require congressional authorization.

North Dakota has no objections to Federal assistance for M&I, and would like to include its South West Pipeline. It has suggested, however, that it be allowed to construct the M&I system with Federal funding of $200 million and a State cost-share of 25 percent. This proposal was received too late to be considered by the Commission.

Secretarial Options

None.

Commission Recommendation

17. **Upon authorization of the Commission Plan, the 1966 Master contract with the State of North Dakota, the Garrison Diversion Conservancy District, and any other contracts subsidiary to the Master Contract should be renegotiated to secure the non-Federal operation and maintenance, replacement, and capital repayment obligations for the Commission Plan in a manner comparable to that developed pursuant to the 1965 authorization of the Initial Stage of the Garrison Diversion Unit, and in accordance with current Reclamation law and Departmental policy.** (D-51)

Discussion

The Commission's Plan substantially changes the scope of the GDU, which raises questions about the validity of existing contracts and the need for additional contracts. Implementation of certain elements of the plan, especially the M&I system repayment, may require congressional authorization.

The Commission's Plan changes project boundaries, which may require changes in boundaries of the Garrison Diversion Conservancy District (GDCD) by adding or deleting counties or parts of counties. The plan will require formation of new irrigation districts and/or changes in the boundaries of others.

Proposed repayment obligations and OM&R cost responsibilities will have to be determined for various elements of the plan before final contract negotiation can be undertaken.

Secretarial Options

a. Implement recommendation and direct Reclamation to initiate contract renegotiations with GDCD and the State upon authorization of the Commission Plan and completion of evaluation of repayment responsibilities.

3. IRRIGATION

Commission Recommendations

18. The Garrison Diversion Unit should be configured to provide irrigation service to 130,940 acres in the Missouri River and James River drainages of North Dakota. (41)

19. **Irrigation service would be extended to a total of 130,940 acres in nine non-Indian irrigation areas and three irrigation areas on Indian reservations.** (D-2) (See also recommendation No. 90.)

Discussion

This cuts in half the acreage authorized in 1965. The Solicitor's Office has under review the question of authority for development of the Indian areas. (See recommendation No. 90.)

Secretarial Options

None.

Commission Recommendation

20. The James River channel should be employed as the conveyance facility to supply irrigation water to the LaMoure and Oakes irrigation areas. (84)

Discussion

Bank stabilization, structure modification, channel improvement, and debris removal is necessary before the James River can convey peak discharges resulting from the GDU. These efforts will follow close consultation with FWS to ensure minimal environmental impact to refuge and non-refuge lands. The Commission Plan will cause increased concern along the James River due to the addition of nearly 40,000 irrigated acres in the upper reaches of the river. In addition, there is also potential for waterlogging as a result of sustained full-channel flow. There are also potential hydrologic impacts as a result of changes in the volume, timing, and quality of water flowing to the James River Basin in South Dakota and its features such as the Sand Lake National Wildlife Refuge.

Secretarial Options

a. Implement recommendation.

b. Direct that studies be completed on potential impacts of this recommendation prior to implementation.

Recommendation: Option b.

Commission Recommendations

21. Drainage modifications should be provided to treat return flows, or to collect and pump return flows to the principal supply works or another suitable Missouri Basin disposal point for the Lincoln Valley area. (42)

22. Alternatively, it is recommended that an equivalent acreage in the West Oakes Extension area be substituted should no cost-effective measures to manage Lincoln Valley return flows be identified. (43)

Discussion

The Lincoln Valley irrigation area is located in the Sheyenne River drainage, which ultimately drains into the Hudson Bay. It would be necessary either capture and divert irrigation return flows into the Missouri River drainage to ensure they do not enter Canadian waters, or to treat the return flows to a degree satisfactory to the Canadian Government prior to releasing the water into the Sheyenne River. Costs associated with pumping the irrigation return flows to the principal supply canal were not included in the Commission's cost estimates.

Secretarial Options

None.

Commission Recommendation

23. Best Management Practices should be included as a requirement in contracts executed for repayment or water service, and that these practices be monitored in compliance with State law on all irrigated areas that might contribute to return flows. (53) (See also recommendation No. 87.)

Discussion

BMPs are required under State law. The State has been conducting studies and the process is underway. Reclamation will implement BMPs to minimize water quality impacts on the James River.

Secretarial Options

None.

Commission Recommendations

24. The viable concepts of satellite well fields and the West Oakes aquifer recharge concept should be investigated commencing in 1985. (80, D-52)

25. When compared to other features of the Commission Plan, the most cost-effective systems should be implemented. (81)

26. The progress of these investigations should be reported at least twice annually to the Secretary of the Interior and the Governor of North Dakota until such time as these concepts are implemented or otherwise abandoned. (82)

27. **Feasibility studies of Oakes ground water recharge should be completed prior to making decisions which would foreclose the opportunity to take advantage of this concept.** (D-52)

Discussion

The Geological Survey has studied North Dakota aquifers and is ready to take the lead in a cooperative effort with Federal, State, and local agencies to carry out the recommended investigations. Yet to be defined are the extent of the aquifers, the chemical quality of the ground water, and the response of the aquifer and stream-aquifer systems to development. Simulation studies will be needed to assess the sustained (long-term) yields of the aquifers and possible changes in ground water quality. Also, field studies will be needed to assess the technical feasibility of artificial recharge in the West Oakes area (and perhaps elsewhere) and to develop data needed to help evaluate the economic feasibility of artificial recharge. Attempting to complete a formal feasibility study prior to resumption of other activities might unnecessarily delay implementation. Note that this recommendation (No. 27) is found only in Appendix D (See recommendation No. 1.)

Secretarial Options

None. The Secretary should direct the Bureau to coordinate with the State of North Dakota and the USGS to develop a research project sufficiently to determine the feasibility of the aquifer recharge concept.

Commission Recommendations

28. A mechanism should be developed and initiated at the earliest practicable time for appropriate parties to negotiate the issue of irrigation water deliveries to Hudson Bay drainage areas of North Dakota. (62)

29. The Secretary of the Interior should encourage the parties to meet at specified 6-month intervals for this purpose until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water to the affected area(s). (63)

Discussion

See Section X on International concerns (Nos. 110, 111, 112).
At the time the Garrison Commission was formed, technical exchanges were taking place between Canada/Manitoba and the United States/North Dakota. Under the purview of formal consultations between the two countries, the technical exchange involved fishery/biota, engineering, wildlife, and the Oakes Test Area.

Secretarial Options

None.

4. MUNICIPAL, RURAL, AND INDUSTRIAL

Commission Recommendations

30. Establishment of municipal, rural, and industrial (MR&I) systems for treatment and delivery of quality water to approximately 130 communities in North Dakota. (28)

31. The configuration and character of the MR&I water systems and the location and character of facilities to treat water supplies shall be determined through a planning process of the bureau or agency that will implement these recommendations. (32)

32. The Secretary should consider strategies similar to those used for the WEB Pipeline Project in South Dakota, where local entities assumed project leadership with appropriate oversight by the Secretary or his designee. (34)

33. Pick-Sloan Missouri Basin Program preference power, which has been previously reserved for irrigation pumping purposes, is recommended to be made available for operation of these systems. (29)

34. An important consideration of system design shall be cost effectiveness. (33)

35. The configuration of the systems shall be based on the ability and willingness of water users to assume financial responsibility. (35)

Discussion (See also recommendations Nos. 14 and 15.)

Preliminary activities will be necessary to determine realistic figures for construction and operation and maintenance of the various systems. Public contact will be necessary to determine consumer interest. Even the Commission's cost estimates, which may be low, are higher than ability-to-pay as found by the State in investigations for its South West Pipeline. Therefore, repayment will have to re-revised once the preliminary survey of interested consumers is complete.

Feasibility of the system also depends in large part on the legality and practicality of using Pick-Sloan power revenues to cover capital costs. The Solicitor believes that, in general, M&I service to these communities is consistent with existing authority. However, details of implementation may not be; for example, Pick-Sloan power cannot be used for M&I purposes at the irrigation rate without additional authority. North Dakota has proposed that it take the lead in determination of willing consumers and design of the system with Federal funding of $200 million and a 25 percent State cost-share. (See Appendix F.) The Commission asked the Secretary in a separate document to study this proposal.

Secretarial Options

a. Implement recommendations; seek legislation.

b. Option a., but also direct study to be made of North Dakota proposal. (See Appendix B.)

Recommendation: Option b.

Commission Recommendations

36. Municipal water supply needs of the Fort Berthold, Standing Rock, and Fort Totten Reservations shall be satisfied. (70)

Discussion (See also recommendation No. 95.)

These needs should be determined as part of the water requirement studies for the reservations. The Commission Plan is not clear on the extent to which these needs should be satisfied, whether they should take precedence over other municipal needs, and what form both design and repayment should take. The Solicitor's Office has this under review. This could be part of the deliberations of the Indian Commission in recommendation No. 99.

Secretarial Options

None. The Secretary should direct the Bureaus of Indian Affairs and Reclamation to cooperatively study the municipal water supply needs. Funding would be provided by GDU FY 85 appropriations to initiate the studies. Congressional authorization may be required.

Commission Recommendations

37. Capital cost repayment assistance should be provided, if necessary, to lower the monthly family cost to $10 more than current obligations, or to the operation and maintenance costs of the system, whichever is greater. (37)

38. Repayment assistance shall be provided without interest by reassigning a portion of the irrigation repayment assistance from the Initial Stage of the Garrison Diversion Unit. (38)

39. Appropriate investigations shall be made to assure early implementation at minimum cost. (36)

40. **The $10 additional monthly family cost (1984 dollars) should be reviewed every 5 years and adjusted accordingly.** (D-6)

41. **In the event that the total family cost, including capital repayment with interest and operation and maintenance costs, is less than $10, the actual costs would be assessed for repayment.** (D-5)

Discussion (See also recommendations Nos. 14 and 15.)

The proposal requires M&I users to pay O&M costs and capital investment, limited to $10 per month per family, or O&M costs, whichever is greater, above their current monthly water bill. The Commission did not provide a figure for present costs to consumers in any of its reports. It appears, therefore, that capital costs must be covered by Pick-Sloan power revenues.

The Solicitor's Office believes the Secretary lacks authority to provide capital cost assistance with or without interest to M&I users.

Secretarial Options

a. Implement recommendations; seek additional authority.

b. Option a. plus direct a study to be made on the North Dakota proposal. (See Appendix C.)

Recommendation: Option b.

Commission Recommendations

42. A municipal and industrial water treatment plant with a capacity of 100 cubic feet per second is recommended to provide filtration and disinfection of water releases to the Sheyenne River for use in the Fargo and Grand Forks areas in accordance with the results of Canadian consultation. (30)

43. The costs of construction, operation, maintenance, and replacement of the Sheyenne release feature should be considered nonreimbursable, since the investment is being made solely for the purpose of maintaining good relations between the United States and Canada. (31)

44. Costs of construction, operation, maintenance, and replacement of a treatment plant for releases to the Sheyenne River are recommended to be nonreimbursable. (19)

45. Costs of features or modifications to features of the Commission Plan attributable to meeting requirements of the Boundary Waters Treaty of 1909 should be considered nonreimbursable. (60)

Discussion

The Solicitor's Office believes that nonreimbursability of costs associated with the Sheyenne release feature would not be consistent with existing authority. The Commission made this recommendation based on similarities with the case of the Yuma Desalinization Plant and the U.S.-Mexico Treaty of 1844. Whether the case is analogous is as yet unclear. Whether or not O&M could under such circumstances be considered nonreimbursable is also questionable. In any event, the Secretary must be able to justify an annual appropriation of over $1 million to cover O&M costs for the treatment plant. TIA believes the treatment system may take into account the results of consultations with Canada but should not be bound to such consultations.

Secretarial Options

None.

Commission Recommendation

46. **The MR&I systems would use closed pipelines, open channels, and, in some cases, local ground water treatment facilities to remove iron and manganese.** (D-3)

Discussion

No comment.

Secretarial Options

None.

5. MITIGATION AND ENHANCEMENT

Commission Recommendations

47. Mitigation for project implementation losses should be accomplished on an acre-for-acre basis, based on ecological equivalency. (24)

48. Implementation of the project mitigation strategy will be the responsibility of the implementing bureau or agency, in consultation with the Federal Advisory Council to be established. (25)

49. In developing and implementing the mitigation plan, the implementing agencies, with the oversight of the Federal Advisory Council, will reassess the data to arrive at a specific mitigation strategy within the limits of cost constraints based upon estimates contained in this report. (D-34)

50. **A detailed mitigation plan will be developed based upon project design and be periodically updated to reflect project changes.** (D-21)

Discussion

The Commission recommended that a complete mitigation program be developed but, primarily in Appendix D, makes very specific recommendations. (See below, recommendations Nos. 55, 58-60, 63-74.)

The Fish and Wildlife Service finds the Commission approach acceptable. Implementation would be achieved through the acquisition of wetland complexes containing a mix of wetland cover types and their associated uplands. Emphasis would be focused upon wetland restoration.

The Commission separates woodlands and other uplands from the wetlands complexes. Woodland mitigation would be achieved by planting two acres for each acre lost. Other upland habitat impacts would be mitigated by acquiring upland cover types for each acre lost.

OM&R costs for managing these mitigation lands are a cost of the project.

The acquisition of existing productive habitat would be limited to special unique habitat such as the Kraft Slough situation.

Secretarial Options

None.

Commission Recommendation

51. Mitigation for impacts to National Wildlife Refuge System and the North Dakota Game and Fish Department lands acquired in part with Federal monies would be implemented in accordance with the Fish and Wildlife Coordination Act, National Wildlife Refuge System Administrative Act of 1966, and Federal Aid to Wildlife Act, regulations (50 CFR Parts 29 and 80), and other legislation, including the Migratory Bird Treaty. (26)

Discussion

This was recommended by FWS to the Commission.

Secretarial Options

None.

Commission Recommendation

52. Wildlife mitigation for the following features should continue to be implemented during further project NEPA compliance:

Snake Creek Pumping Plant
McClusky Canal
New Rockford Canal
James River Feeder Canal
Jamestown Dam and Reservoir
New Rockford Irrigation Area
Robinson Coulee/James River Diversion
LaMoure Irrigation Area
West Oakes Irrigation Area
West Oakes Pumping Plant and Canal
(88, 89)

Discussion

FWS supports efforts to establish specific mitigation requirements for each feature and subsequent mitigation implementation efforts should continue to be pursued without awaiting further project NEPA compliance.

Secretarial Options

None.

Commission Recommendation

53. The Commission recommends establishment of a Federal Advisory Council to provide continuing oversight, coordination, and management of wildlife programs associated with the Commission Plan. The 10-member council will be composed of (a) three residents of the State of North Dakota and three residents of other States, all having extensive professional experience in waterfowl and wetlands management; (b) the Commissioner of the North Dakota Department of Agriculture; (c) the Commissioner of the North Dakota Game and Fish Department; (d) the Regional Director of the Bureau of Reclamation; and (e) the Regional Director of the U.S. Fish and Wildlife Service (USFWS). The Regional Director of USFWS will serve as chairman and the Designated Federal Representative. The Advisory Council will review the wildlife program and annually make recommendations for any needed revisions for consideration by tha Secretary of the Interior, the Governor of North Dakota, and the managing agencies. On a case-by-case basis, the Council will make recommendations as to whether the Secretary of the Interior's eminent domain authority should be used for implementation of the wildlife program. (27)

Discussion

The Solicitor's Office advises that the Secretary has the authority to establish a Federal Advisory Council, but that legislation would be needed to authorize it to perform any responsibilities other than purely advisory ones. North Dakota has suggested that the six members from affected States include some landowners or farmers to ensure balanced representation of interests. In addition, the joint Federal-State Committee, appointed by the Secretary in 1982 to provide oversight and direction to mitigation and enhancement matters, is still in existence. The Bureau of Reclamation and FWS support both the Council and the Commission's proposed membership. FWS believes that the State Commissioner of Agriculture will adequately represent the interests of farmers.

Secretarial Options

None.

Commission Recommendations

54. The Secretary should initiate efforts to purchase Kraft Slough in its entirety, to be managed in perpetuity for its wildlife values by the appropriate Federal or State agency. These wildlife values shall be credited as mitigation for habitat losses incurred elsewhere. (49, 50)

55. **The Commission proposes to leave Kraft Slough in its natural state, without impact, and be purchased in its entirety as mitigation and be managed in perpetuity for its wildlife values.** (D-11)

Discussion

The FWS supports this recommendation and suggests Kraft Slough be incorporated as a unit of the National Wildlife Refuge System managed by the FWS, State, or other appropriate entity. The capability of Phase I of Glover Reservoir to satisfy the regulatory function that would have been assigned to Taayer Reservoir must be measured. South Dakota is concerned about water shortages in the lower James River. The Bureau should make sizing and hydrologic studies recognizing these concerns.

Secretarial Options

None.

Commission Recommendations

56. The Lonetree area is to be retained in United States ownership and managed for wildlife purposes by the State in accordance with the Fish and Wildlife Coordination Act, 16 U.S.C. 661, *et seq.*. The Bureau of Reclamation shall enter into an appropriate management arrangement with the State relative to the lands of the Lonetree Reservoir site. (47)

57. The Sheyenne Lake National Wildlife Refuge should be replaced pursuant to the National Wildlife Refuge System Administration Act. (48)

58. **The area of Lonetree Reservoir will be considered as a potential reservoir site. However, it can be used in the interim for wildlife purposes provided such use will not prohibit its future use as a reservoir site.** (D-12)

59. **Interim wildlife values will be credited to a mitigation ledger.** (D-13)

60. **Lonetree land acquisition should be completed.** (D-14)

61. **Included in the Lonetree mitigation credit is the proviso that acquisition of the site be completed to facilitate management, and remove the refuge status of Sheyenne Lake pursuant to the exchange of land provisions in the National Wildlife Refuge Act. Therefore, the Johnson Lake tract acquisition should be completed and the area be used to replace Sheyenne Lake Refuge.** (D-30)

Discussion

The FWS supports this proposal and stands ready to assist in the preparation of the requisite General Plan and supporting management documents. Yet to be determined are potential difficulties relating to management of the Lonetree site for wildlife while at the same time avoiding damage to its potential use as a regulatory reservoir site. The Bureau of Reclamation is preparing studies on costs associated with mothballing the dam area. The development and implementation of a management plan will be extremely sensitive, requiring substantial time as well as careful planning and coordination. Establishment of a Lonetree management advisory group involving local, State, and Federal interests would facilitate implementation. FWS believes the Federal Advisory Council in recommendation No. 54 would be the appropriate body for implementation, since the lands in question are proposed for interim mitigation designation. As the engineering and biological aspects of the plan are developed, implementation would proceed over a number of years. The State of North Dakota has indicated an interest in onsite management. Efforts to resolve potential impacts on Lake Audubon should continue.

Secretarial Options

None.

Commission Recommendation

62. Those channel changes and mitigation measures should be implemented which are determined necessary to use the James River as the principal southern conveyance system. Bypass canals and other structural and/or management measures to reduce return flow impacts to Arrowwood and Sand Lake Refuges shall be investigated, and appropriate measures implemented to lessen refuge impacts. (85)

Discussion

This recommendation will have to be developed. (See analysis of recommendation No. 20.) Costs for additional channelization, construction of bypass canals, and investigations were not included in the Commission Report.

Secretarial Options

None.

Commission Recommendations

63. **Priorities for means of mitigation would be restoration of drained wetlands, followed by creation of new wetlands, and then acquisition of existing wetlands. Other wildlife habitat types would be mitigated in the same order.** (D-19)

64. **Drainage into project conveyance and drainage facilities from non-project lands in violation of policy or State law would be considered as a mitigable loss.** (D-20)

65. **The mitigation program will be adjusted to compensate for unanticipated losses and for latent losses or benefits as they are determined.** (D-22)

66. **A mitigation ledger will be maintained to allow flexibility in mitigation timing and permit valuable wildlife habitat to be acquired and banked as a credit to the mitigation plan in advance of need.** (D-23)

67. **Mitigation measures will be implemented prior to loss of the resource and unfulfilled mitigation from past project losses need to be completed.** (D-24)

68. **Prorata enhancement measures will be implemented concurrently with mitigation.** (D-25)

69. No less than 5 percent of all annual project-related capital expenditures will be made available for mitigation and enhancement purposes to keep mitigation measures equal to mitigation and enhancement programs. (26)

70. If necessary the ratio of mitigation and enhancement to construction may be increased to assure that mitigation and enhancement maintain parity within the construction schedule. (27)

Discussion

FWS concurs with the above recommendations. (Note: They are all found exclusively in Appendix D.) The $34.7 million figure used by the Commission as remaining costs for mitigation and enhancement only represents 3.8 percent of the $909 million total remaining project costs. The Commission probably intended that mitigation and enhancement activities would be completed prior to construction. However, achievement of this will be contingent on availability of willing sellers.

Secretarial Options

a. Begin implementation concurrently with construction.

b. Delay implementation pending development of complete mitigation plan.

Recommendation: Option a.

Commission Recommendation

71. **When the new master contract is negotiated to implement the Commission's recommendations, present conditions should be the basis for developing new ratios between mitigation and enhancement.** (D-32)

Discussion

This assumes renegotiation of a master contract. (See No. 17.)

Secretarial Options

None.

Commission Recommendations

72. **A total of 82,699 acres are needed for mitigation and enhancement.** (D-31)

73. **The figure is an estimate of the acre-for-acre replacement; however, it should be refined for eventual mitigation plan.** (D-33)

Discussion

This figure is double that required under Phase I of the authorized project and is based on 39,230 acres for mitigation and 43,469 acres for enhancement. The cost estimates are based on a $550/acre purchase price and $205/acre development cost. Both figures are under review and may be low. Acreage to be acquired may also change.

Secretarial Options

None.

6. NEPA COMPLIANCE

Commission Recommendations

74. NEPA compliance completed for project features common to the authorized project and to the Commission Plan should be considered adequate, assuming no supplementation is required and implementation of those common features proceeds immediately. The project features in this category include:

Snake Creek Pumping Plant
McClusky Canal
New Rockford Canal
James River Feeder Canal
Jamestown Dam and Reservoir
New Rockford Irrigation Area
Robinson Coulee/James River Diversion
LaMoure Irrigation Area
West Oakes Irrigation Area
West Oakes Pumping Plant and Canal
(88)

75. **NEPA compliance for features carried over from the authorized project should be deemed adequate for immediate implementation where those features have been adequately evaluated in a previous Final Environmental Statement (FEIS) and the implementation of the Commission Plan does not require supplementation to any FEIS.** (D-47)

76. For features of the Commission Plan not previously considered under NEPA, or features which have changed significantly since previous NEPA compliance, site-specific NEPA compliance should be completed prior to initiating construction of those features. (92)

77. The Secretary of the Interior should proceed immediately with advance planning actions leading to preconstruction reports, NEPA compliance, final designs, and prompt implementation of the remaining features of the Commission Plan, in close coordination with the State of North Dakota. (23)

Discussion

Should the Secretary decide to resume construction on previously authorized features of the project still requiring some NEPA documentation without waiting for congressional action on legislation, resumption of the NEPA process would automatically occur as a matter of Department policy.

Secretarial Options

None.

Commission Recommendation

78. Programmatic NEPA compliance for the Commission Plan should be concluded within 18 months of congressional action confirming the Secretary's authority to implement any part of the Commission Plan that is determined to be beyond current authorization. (90)

Discussion

Reclamation must review the viability of shortening programmatic NEPA compliance. Depending upon how soon Congress acts on the legislation proposed by the Secretary, it is unlikely that the engineering, soils, and other studies the of all aspects of the Commission's recommendations that would be needed as a basis for environmental analysis could be completed in time to allow adequate NEPA compliance within 18 months thereafter. A programmatic statement describing unrelated activities would serve little purpose and convey little information to decisionmakers or the public. Also, an attempt to shorten the NEPA process will surely elicit opposition from environmental groups, and may run into trouble with Congress. The Solicitor's Office advises that if reasonable efforts are made, no adverse legal consequences would flow from a failure to perform strictly within the time limits recommended by the Commission.

Secretarial Options

None.

Commission Recommendation

79. The Secretary should establish an Environmental Impact Task Force with Reclamation as lead agency in cooperation with the State of North Dakota, Bureau of Indian Affairs, Fish and Wildlife Service, Environmental Protection Agency, Indian Tribes, and other appropriate entities. (93, D-50)

Discussion

An estimate of the cost of establishing such a task force was not included in the Report. The Bureau of Reclamation estimates that the costs would be normal and would be absorbed within the EIS preparation costs.

Secretarial Options

None.

7. WATER QUALITY

Commission Recommendations

80. Construction of an outlet from the Devils Lake system to the Sheyenne River and future funding for an inlet to the Devils Lake system should be considered. Initiation of either feature shall be based on the outcome of current Corps of Engineers studies, NEPA compliance, permitting reviews, and satisfactory completion of consultations with Canada. (83) (See also recommendation No. 121.)

81. The desires of the Devils Lake Sioux for the freshening of Devils Lake should be given due regard. (76) (See also recommendation No. 97.)

Discussion

The Corps estimates approximately 2 years to complete its study. Canada has indicated it has no objection to an outlet from Devils Lake if it is for stabilization purposes only. The Solicitor's Office indicates that the Secretary has sufficient authority to implement. Costs for construction of an outlet were not included in the Commission's report.

Secretarial Options

None.

Commission Recommendation

82. Stream flow and quality in the James River should be monitored. (54)

Discussion

Ongoing USGS streamflow and water-quality monitoring programs in North Dakota can be expanded to include timely or even real-time reporting to accommodate this recommendation. The design and implementation of the required monitoring networks should begin as soon as possible to establish "baseline" conditions, and to develop the information base needed to support the plan as presently outlined or alternative plans that may be considered in the future. USGS data show that a high salinity hazard exists about 30 percent of the time at three James River sites. Water diverted from Lake Audubon may have high concentrations of dissolved solids and irrigation return flows will clearly contain high concentrations. The end result is great uncertainty about the quality of the James River with all indications that dissolved solids may be high.

Secretarial Option

None. The Secretary should direct the Bureau to coordinate with the States of North Dakota and South Dakota and the USGS in developing an enhanced monitoring program for the James River.

Commission Recommendations

83. Such volumes of water from project features should be provided as are needed to maintain the salinity of water at the South Dakota border at a level no higher than the pre-project historical monthly average. Such releases will be made by the operating agency in consultation with the State. (55)

84. **To offset the increase in salinity, such quantities of dilution water shall be released as required to maintain monthly discharge weighted average salinity levels at the South Dakota border at or below the pre-project historical discharge weighted average.** (D-38)

Discussion

The Bureau of Reclamation has reservations concerning the feasibility of this recommendation. It could necessitate releases of large quantities of water downstream, creating adverse impacts on James River residents and on Sand Lake NWR. The Solicitor's Office believes the Secretary can implement this if not in conflict with existing water rights under State law. Operational studies, including the irrigation effects of Glover Reservoir, would have to be made.

Secretarial Options

1. Implement recommendations immediately.

2. Implement recommendations following operational and other necessary studies.

Recommendation: Option b.

Commission Recommendation

85. Best Management Practices (BMPs) should be included as a requirement in contracts executed for repayment or water service, and these practices should be monitored in compliance with State law on all irrigated areas that might contribute to return flows. (53) (See also recommendation No. 23.)

Discussion

BMPs are already required under State law. The State has been conducting studies and the process is underway. The Bureau of Reclamation will use BMPs to minimize water quality impacts on the James River.

Secretarial Option

None.

Commission Recommendations

86. The current Lake Audubon and McClusky Canal water freshening program should be reevaluated, including an examination of alternative approaches to reduce salinity levels prior to start of project operation. In particular, the feasibility of reverse draining Lake Audobon into Lake Sakakawea and pumping back McClusky Canal waters into Painted Woods Creek shall be evaluated. (56)

87. The Secretary should direct the Bureau of Reclamation to develop a program to freshen the Lake Audubon/McClusky Canal system to the extent that is economically and technically feasible. (57)

Discussion

The Bureau of Reclamation has under review its freshening plan and all associated environmental documents. USGS believes that a freshening program for Lake Audubon and good management strategies for maintaining streamflow quality within desired limits should rely on better understanding of the hydrologic system and continual monitoring.

Secretarial Options

None. The Secretary should direct the Bureau to coordinate with the State of North Dakota and USGS to develop a freshening program for Lake Audobon.

8. INDIAN RELATED ISSUES

Commission Recommendations

88. 15,200 acres of Indian lands of the Lucky Mound and Upper Six Mile Creek irrigation areas of the Fort Berthold Reservation should be developed. (66) (See also recommendation No. 19)

89. Delay implementation of the second area until the first is determined to be successful by the implementing agency. (67)

Discussion

Whether or not these Indian lands are authorized under the Garrison Project is under review by the Solicitor's office. The tribes themselves are concerned that the predominantly glacial till lands will not meet the test of irrigability. They have requested only that feasibility studies be made and cost estimates developed.

BIA recommends that Reclamation assume a lead role in developing these resources. Funding for feasibility studies would be from GDU appropriations.

Secretarial Option

a. Implement recommendations; direct BIA to conduct feasibility studies and propose legislation if necessary.

b. Implement recommendations; direct Reclamation to conduct studies and propose legislation if necessary.

c. Defer action until consultations with Tribes are completed to determine acceptance of lead agency.

Recommendation: Option c.

Commission Recommendation

90. Should the Standing Rock Sioux Tribe so request, irrigation assistance should also be provided for the 2,380-acre Fort Yates irrigation area. (68)

Discussion

The Standing Rock Sioux were opposed to the authorized project, fearing loss of water downstream. They testified before the Commission saying they did not want Fort Yates developed. Nevertheless, the Commission decided to include the area as part of their recommendation.

Secretarial Options

None.

Commission Recommendation

91. Irrigation of lands on the Fort Totten Reservation with Missouri River water should not be undertaken until potential problems with biota transfer into Canadian waters are resolved. (69)

Discussion (See also recommendations Nos. 82, 83, and 112.)

Fort Totten is the Devils Lake Sioux reservation. This group testified primarily in support of Devils Lake stabilization. TIA believes development should not be based on international negotiations.

Secretarial Options

None.

Commission Recommendation

92. Facilities for Indian reservations which are a part of the Commission Plan should be implemented with Bureau of Reclamation appropriations, using pumping power from the Pick-Sloan Missouri Basin program, with repayment made pursuant to the Leavitt Act. (71) (See also recommendation No. 99.)

Discussion

Authorization for this proposal is under review by BIA and the Solicitor's Office. If the Indian areas are not considered authorized, they may not be entitled to Pick-Sloan power. The Indian groups requested to be included under Garrison appropriations. This would be the subject for consideration by the Commission as recommended in No. 99.

Secretarial Options

None.

Commission Recommendation

93. Municipal water supply needs of the Fort Berthold, Standing Rock, and Fort Totten Reservations shall be satisfied. (70)

Discussion (See also recommendation No. 37.)

These needs would be determined as part of the water requirement studies for the reservation. The Commission plan is not clear on the extent to which these needs should be satisfied, whether they should take precedence over other municipal needs, and what form either design or repayment should take. This could be the subject of study by the Commission as recommended in No. 99. The Secretary recommends BIA perform studies and prioritize construction according to needs without repayment by Indian beneficiaries, and expand the project to include municipal water needs as well as irrigation needs.

Secretarial Options

a. Incorporate M&I studies with irrigation feasibility studies; satisfy needs prior to satisfying non-Indian needs.

b. Incorporate M&I with irrigation feasibility studies and with statewide M&I system.

c. Postpone action pending five-member commission report. (See recommendation No. 99.)

Recommendation: Option b.

Commission Recommendation

94. The Secretary should intercede with the Army Corps of Engineers to seek access rights for the tribes to develop recreation opportunities along the shorelines of Lakes Sakakawea and Oahe. (72)

Discussion

During the Commission process, the tribes complained that access to Lakes Sakakawea and Oahe had been restricted by the Corps. They felt that, since these lakes inundated formerly Indian lands (that had been purchased at fair market price), the Indians should retain rights of access to the lakeshores. As trustee for Indian tribes, the Secretary has the authority to intercede with the Corps on such an issue.

Secretarial Options

a. Implement recommendation; direct that the issue be studied along with study of compensation for losses in other areas requested by the tribes. (See recommendation No. 99.)

b. Direct AS/BIA to contact the Corps of Engineers and urge that a study be conducted jointly by BIA and the Corps on this issue.

c. Direct AS/BIA to work with Legislative Counsel in drafting legislation.

Recommendation: Option b.

Commission Recommendation

95. The desires of the Devils Lake Sioux for the freshening of Devils Lake should be given due regard. (76)

Discussion

No objection. See also recommendation No. 83.)

Secretarial Options

None.

Commission Recommendation

96. The Secretary should promptly encourage initiation of congressional oversight hearings on Indian water rights in the Missouri River Basin. (73)

Discussion

The Secretary has the authority to encourage such hearings. BIA comments that there are serious questions concerning the productivity of Congressional hearings on water rights. In fact, additional publicity created by such hearings could result in harmful backlash. Even though this Department may not encourage hearings, the appropriate Congressional committees could decide to proceed.

Secretarial Options

None.

Commission Recommendation

97. No later than January 31, 1985, the Secretary should appoint a five-member commission of which no fewer than two members are representatives of Indian Tribes. The Commission will report to the Secretary no later than October 1, 1985, regarding the following items on the Fort Berthold and Standing Rock Reservations:

-- Full potential for irrigation
-- Financial assistance for on-farm development costs
-- Replacement of infrastructures lost by the creation of Garrison Dam and Lake Sakakawea and Oahe Dam and Lake Oahe
-- Preferential rights to Pick-Sloan Missouri Basin power
-- Development of shoreline recreation potential
-- Return of excess lands
-- Additional financial compensation
-- Protection of reserved water rights
-- Other items the five-member Commission may deem appropriate
-- Funding of all items above from the Garrision Diversion Unit funds, if authorized. (75)

Discussion

As with the other recommendations for advisory groups, the addition of yet another advisory body should be weighed carefully. However, as a practical matter the recommended commission may be an appropriate vehicle to air the many concerns raised by the tribes. Tribal officials are requesting that the bill to be submitted on February 15 contain an authorization of $150 million to cover this five-member commission's recommendations. Estimated costs would be $200,000 for the nine-month period of the commission's existence. The Secretary may only have authority to appoint a commission composed of Federal employees.

Secretarial Options

None.

Commission Recommendations

98. The Secretary should provide assurances to the Three Affiliated Tribes of Fort Berthold (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux that all previous legally binding commitments and/or treaties of the United States made in conjunction with lands taken and values thereof for the creation of Lakes Oahe and Sakakawea will be fulfilled. (74)

99. **The Commission recommends under its legislative mandate to consider institutional equity, (in accordance with Public Law 98-360, Section 207 (c)(2)(H)) that assurances be given to both the Three Affiliated Tribes of Fort Berthold Reservation (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux, that all previous legally binding commitments and/or treaties of the United States in conjunction with lands taken and values thereof for the creation of Lakes Oahe and Sakakawea will be fulfilled.** (D-8)

Discussion

Commitments were made by the Corps of Engineers to return unused lands upon completion of Lake Oahe and Lake Sakakawea. According to the tribes, this was not done.

Sec. 207(c)(2)(H) of P.L. 98-360 refers to institutional and tax equity issues related to the authorized project and alternative water developemnt proposals only. Although this provision does not specify Indian groups, BIA suggests that in consultation with the affected tribes, the Secretary could review historical commitments made to the tribes concerning the lands taken for the creation of Lakes Sakakawea and Oake and recommend corrective measures, if warranted.

Secretarial Options

None.

9. RECREATION

Commission Recommendations

100. Development of recreation features should be completed with other project construction. Recreation features should include three State Parks, 11 county and city recreation areas, and three trails, as included in the Commission Plan (Appendix D) and referred to in the State of North Dakota Plan for Development of the Garrison Diversion Unit, September 1984, with appropriate adjustment to reflect the deferral of Lonetree Reservoir. (52)

101. The acquisition and development of the recreation features would be concurrent with other project construction. Funding would be on a 50-50 ratio. (35)

Discussion

The North Dakota State Parks and Recreation Department worked closely with the Bureau of Reclamation and Garrison Diversion Conservancy District in evaluating the Garrison recreation plan. After a series of 1984 public meetings, the State proposed broad changes to the initial recreation plan. These are identical to the recommendation of the GDU Commission.

Secretarial Options

None.

10. INTERNATIONAL CONCERNS

Commission Recommendation

104. The terms and conditions of the Boundary Waters Treaty should be honored. (58)

Discussion

TIA believes this may exceed the Commission's authority. In any case, treaty terms have been honored to date.

Secretarial Options

None.

Commission Recommendation

103. The Secretary of the Interior should initiate discussions with the Department of State to pursue negotiation of modification to the 1909 Boundary Waters Treaty to more precisely define the word "pollute" for treaty purposes and make other changes of a mutually appropriate nature. (64)

Discussion

TIA believes that this may exceed the scope of the present Garrison plan. There is little doubt that the Secretary may initiate discussions with the State Department as recommended.

Secretarial Options

None.

Commission Recommendation

104. Missouri River water conveyed into the Hudson Bay drainage as part of the Commission Plan shall be treated in a manner determined acceptable pursuant to United States-Canada consultations. (59)

Discussion

This has been Department policy.

Secretarial Options

None.

Commission Recommendations

105. Costs of features or modifications to features of the Commission Plan attributable to meeting requirements of the Boundary Waters Treaty of 1909 should be considered nonreimbursable. (60)

106. Of the $401,200,000 cost for municipal, rural, and industrial water systems, $40,500,000 is to be considered nonreimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909. (14)

107. $1,340,000 of estimated operation and maintenance costs is to be considered nonreimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909. (15)

Discussion

As indicated above (Nos. recommendations 43-46), the analogy of this case with that of U.S. obligations to Mexico should be reviewed. The Commission seems to be referring to the Sheyenne release in its recommendation for nonreimbursability (recommendations Nos. 116-117), but the language opens the door to more such findings. TIA notes that this recommendation may exceed the Commission's authority. The Solicitor indicates that, absent specific legislation making capital and OM&R costs nonreimbursable, this recommendation would be inconsistent with existing authority.

Secretarial Options

None. Exceeds Secretarial authority, therefore, introduce legislation prescribed by Commission recommendation.

Commission Recommendations

108. A mechanism should be developed and initiated at the earliest practicable time for appropriate parties to negotiate the issue of irrigation water deliveries to Hudson Bay drainage areas of North Dakota. (62)

109. The Secretary of the Interior should encourage the parties to meet at specified 6-month intervals for this purpose until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water to the affected area(s). (63)

110. Irrigation of lands on the Fort Totten Reservation with Missouri River water should not be undertaken until potential problems with biota transfer into Canadian waters are resolved. (69)

111. For those municipal and industrial systems that will deliver Missouri River water to communities in the Hudson Bay drainage, it is recommended that the United States consult with the Government of Canada on plans and methodologies before implementation. (40)

112. **Waters delivered into the Hudson Bay drainage for municipal and industrial use would be filtered and disinfected to prevent transfer of objectionable fish species and pathogens.** (D-41)

Discussion

These recommendations may all be incorporated, to the extent they are not already a part, into the continuing consultations with Canada. In the case of the M&I systems, the Canadians have indicated they have no objection to treated water in closed pipelines being delivered for municipal use in the Hudson drainage. However, if it is proposed to use open channels, consultation will be necessary, adding a further impediment to the completion of an M&I system.

Secretarial Options

a. Implement recommendations.

b. Implement recommendations, direct AS/WS to coordinate with the State Department.

Recommendation: Option b.

Commission Recommendations

113. Undertaking of a one-time baseline survey of species and pathogens in waters of the Hudson Bay drainage, to be the responsibility of an independent international organization not affiliated with the Governments of the United States or Canada. The scientific team should include qualified technical specialists from the State of North Dakota, the Province of Manitoba, the United States, and Canada, and would be funded as part of the Commission Plan. (61)

114. **Prior to delivery of treated Missouri River water into the Hudson Bay drainage basin, a comprehensive inventory of fish species and pathogens present in Manitoban waters should be conducted by an independent international body to provide a baseline of current conditions.** (D-42)

Discussion

Designation of this body would have to be determined. The Bureau of Reclamation feels that such a study would be extremely useful. (Note inconsistency between recommendations No. 115 and No. 116 relating to waters subject to the study.) TIA believes this exceeds the scope to the Commission's authority. A study in only Manitoban waters is not within the Secretary's jurisdiction and could not be implemented without Congressional authorization.

Secretarial Options

a. Seek authority to conduct studies.

b. Initiate consultations with Canada on viability of cooperative study.

Recommendation: Both options a. and b.

Commission Recommendation

115. A municipal and industrial water treatment plant with a capacity of 100 cubic feet per second is recommended to provide filtration and disinfection of water releases to the Sheyenne River for use in the Fargo and Grand Forks areas in accordance with the results of Canadian consultation. (30)

Discussion

This may require further consultation with Canada on technical aspects, but indications are that it will be accepted. TIA indicates that development of the treatment system could take results of consultations with Canada into account, but should not be bound to such consultations.

Secretarial Options

None.

Commission Recommendation

116. The costs of construction, operation, maintenance, and replacement of the Sheyenne release feature should be considered nonreimbursable since the investment is being made solely for the purpose of maintaining good relations between the United States and Canada. (31)

Discussion (See recommendations Nos. 43 and 44.)

In addition, there will be O&M costs of over $1 million annually. The Solicitor believes nonreimbursability of costs associated with the Sheyenne release feature would not be consistent with existing authority.

Secretarial Options

None.

Commission Recommendation

117. Construction of Lonetree Dam should be deferred pending a determination by the Secretary of the Interior consisting of a demonstration of need and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought. (45)

Discussion

(See recommendation No. 8.)

Secretarial Options

See recommendation No. 8. (None. Direct AS/WS to initiate consultations when appropriate.)

Commission Recommendations

118. The Secretary of the Interior should define a program whereby appropriate authorities of the United States and Canada, in consultation with representatives of the Province of Manitoba and the State of North Dakota, begin during 1985 to explore establishment of a Binational Resource Development Program. (65)

119. **A binational mechanism should be established, through negotiations and cooperative study by appropriate agencies and independent entities, to define ways to exchange resources, including water, power, minerals, and markets, to meet mutual needs.

Two key elements would be addressed at least initially in developing this mechanism: (1) the initiation of strategies for mutually beneficial irrigation and MR&I water development with North Dakota, Manitoba, and Saskatchewan, and (2) the acquisition of wildlife habitat in the region.** (D-43)

Discussion

The Canadians have stated objections to this proposal, particularly the concept of binational development of water resources. Such a recommendation should be deferred pending consultations or initiation of negotiations of amending the Boundary Waters Treaty, in accordance with recommendation No. 105, should the latter occur. Congressional authorization would be needed.

Secretarial Options

1. Implement recommendations; seek Congressional authority.

2. Defer pending Canadian consultations.

Recommendation: Option b.

Commission Recommendation

120. Construction of an outlet from the Devils Lake system to the Sheyenne River and future funding for an inlet to the Devils Lake system should be considered. Initiation of either feature shall be based on the outcome of current Corps of Engineers studies, NEPA compliance, permitting reviews, and satisfactory completion of consultations with Canada. (83)

Discussion (See also recommendation No. 82.)

This could also be a part of Canadian consultations. No costs were projected in the Commission Plan for construction of an outlet. The Bureau of Reclamation has estimated the construction costs to be approximately $15 million.

Secretarial Options

None.

V. .BUDGET ANALYSIS

A. ESTIMATED REQUIREMENTS FOR FY 1985

P.L. 98-360 appropriated $53.58 million for FY 1985 for the Garrison Diversion Unit. The Office of Management and Budget has apportioned only $9 million of that sum. A formal request must be made to OMB to reapportion any funds over $9 million which are needed to implement the Secretary's decisions related to the Commission recommendations pursuant to P.L. 98-360.

The Bureau of Reclamation, based on activities that can and should be initiated as soon as possible, has estimated funding requirements for the balance of FY 1985. The following chart breaks these requirements down by principal features of the Commission Plan, and includes estimated costs for those features on which the Secretary may or may not decide to go forward.

Appropriation Title: Construction Program
Construction and Rehabilitation

PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA - 1

FISCAL YEAR 1985

Work Proposed	Program
Principal Supply Works and General Facilities	
Snake Creek Pumping Plant. - For continued operation, maintenance, site security, and freshening of Audubon Lake.	$ 150,000
McClusky Canal. - For routine operations and maintenance, and continuation of drafting contract, tree planting, noxious weed control, and ditch cleaning. Contracts will be awarded for Lake Holmes Outlet Works, slide repair, and seepage control drains. Contracts will be awarded and completed for comfort stations and boat ramp replacement.	$ 6,970,000
Sykeston Canal. - For preconstruction activities.	$ 600,000
Lonetree Reservoir and Dams. - For award of contracts for Lonetree restoration, reservoir clearing, and noxious weed control. Work will continue on road and utility relocations and acquisition of land and easements. Contractor claims will be settled.	$ 7,250,000
Garrison Study Commission. - For payment of all costs associated with the Garrison Commission.	$ 817,000
Oakes Test Area. - For completing land acquisition and construction of the pumping plant and drains. Construction of the distribution system and railroad and utility relocations will continue. Contract will be awarded for pumps and prime movers. Contractor claims will be settled.	$ 4,300,000
West Side Irrigation Facilities. - For award of contract for Block 2A drains and initiation of rights-of-way acquisition and preconstruction for drainage and distribution features. Investigations of viable concepts of satellite well fields and the West Oakes aquifer recharge will be initiated.	$ 1,400,000
Taayer Alternative Site. - For negotiation with the State of North Dakota for construction of Clover Reservoir/Dike.	$ 20,000

Appropriation Title: Construction Program
Construction and Rehabilitation

PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA - 2

FISCAL YEAR 1985

Work Proposed (continued)	Program
Oakes Canal. - For preconstruction activities.	$ 30,000
LaMoure Irrigation Facilities. - For initiation of land and easements acquisitions, archeological investigations, and relocations. Preconstruction work will continue on Block 1 Distribution System and Block 2 drains.	$ 750,000
Central North Dakota Section. -	
New Rockford Canal. - For continued land acquisition and relocation activities and completion of Reach 1B. Contracts will be awarded for Reaches 1A and 2 and for cultural resource investigations. Contractor claims will be settled.	$ 5,207,000
James River Feeder Canal. - For contract award for the James River Feeder Canal, land acquisition, and completion of archeological investigations.	$ 240,000
James River Improvement. - For initial land acquisition, completion of James River planning model, and South Dakota Water Delivery Study. Design work on structural modifications and channel improvements will be underway.	$ 1,950,000
New Rockford Irrigation Facilities. - For preconstruction activities.	$ 200,000
New Rockford Extension Irrigation Facilities. - For preconstruction activities.	$ 50,000
Lincoln Valley Irrigation Facilities. - For design work on the distribution system and drains.	$ 250,000
Harvey Pumping Irrigation District. - For preconstruction activities.	$ 50,000

Appropriation Title: Construction Program
Construction and Rehabilitation

PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA - 3

FISCAL YEAR 1985

Work Proposed (continued)	Program
Indian Missouri River Pumping Irrigation	
Lucky Mound. - For preconstruction activities.	$ 20,000
Upper Six Mile Creek. - For preconstruction activities.	$ 20,000
Fort Yates. - For preconstruction activities.	$ 10,000
Commission. - For establishing a five-member commission to assess and report on possible steps necessary to complete indemnification of Indian communities of North Dakota that were disrupted by construction of P-SMBP dams and reservoirs.	$ 200,000
General Facilities. -	
Permanent Operating Facilities. - For continued acquisition of office and O&M equipment and award of contracts for Oakes Test Area controls and New Rockford O&M building. Land acquisition for operating facilities will be completed.	$ 1,350,000
Fish and Wildlife Facilities. - For continued acquisition of land for mitigation and enhancement purposes and mitigation area development.	$ 8,960,000
Recreation Facilities. - For continued recreation development activities on Lakes Brekken-Holmes and McClusky Canal, and contract award for recreation structures on Principal Supply Works.	$ 550,000
Service Facilities, Depreciation, and Salvage. - For equipment purchase.	$ 650,000
Other Project Costs. - For transitional development.	$ 6,000
TOTAL	$ 42,000,000

PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA

FISCAL YEAR 1986

Work Proposed	Program
Principal Supply Works and General Facilities	
Snake Creek Pumping Plant. For continued operation, maintenance, site security, and freshening of Audubon Lake.	$ 100,000
McClusky Canal. For routine operations and maintenance, and continuation of drafting contract, tree planting, noxious weed control, and ditch cleaning. Work will be completed on seepage control drains and slide repair.	3,760,000
Sykeston Canal. For preconstruction activities.	1,100,000
McClusky Canalside Irrigation. For preconstruction activities.	10,000
Lonetree Reservoir and Dams. For award of contract for relocation of farmsteads and cemetery and reservoir fencing. Work will continue on road relocations and noxious weed control and will be completed on reservoir clearing, acquisition of land and easements, and site restoration.	3,370,000
Oakes Test Area. For completion of construction of the distribution system, completion of road and utility relocations, and acquisition of additional pumps and prime movers.	4,910,000
West Side Irrigation Facilities (Oakes area). For award of contract for Block 2B drains, continued construction of Block 2A drains, and completion of purchase of rights-of-way.	2,100,000
Taayer Alternative Site. For transfer of funds to State of North Dakota for design data collection of Glover Reservoir/Dike.	2,000,000
Oakes Canal. For preconstruction activities.	30,000

PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA

FISCAL YEAR 1986

Work Proposed (continued)	Program
LaMoure Irrigation Facilities. For completion of acquistion of land and easements, archeological investigations, and relocations. Preconstruction work will continue on Block 1 Distribution System and Block 2 drains.	$ 1,020,000
Central North Dakota Section.	
New Rockford Canal. For award of contract for canal lining and drains on Reach 1B; continued construction on Reaches 1A and 2; completion of railroad relocations; and continued archeological investigations. Design work will continue for Reach 3.	11,330,000
New Rockford Canalside Irrigation. For preconstruction activities.	2,000
James River Feeder Canal. For continued construction.	1,050,000
James River Improvement. For continued land acquistion; award of contract for cleaning and channel improvement; and design work on structural modifications.	1,080,000
New Rockford Irrigation Facilities. For initial land acquisition, design work, and award of contract for Block 1 drains.	1,768,000
New Rockford Extension Irrigation Facilities. For preconstruction activities.	50,000
Lincoln Valley Irrigation Facilities. For design work on the distribution system and drains.	500,000
Turtle Lake Irrigation District. For preconstruction activities.	200,000
Harvey Pumping Irrigation District. For preconstruction activities.	50,000

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PICK-SLOAN MISSOURI BASIN PROGRAM
GARRISON DIVERSION UNIT, NORTH DAKOTA

FISCAL YEAR 1986

Work Proposed (continued)	Program
Indian Missouri River Pumping Irrigation	$
Lucky Mound.	250,000
Upper Six Mile Creek.	200,000
Fort Yates.	100,000
Domestic and Rural Water.	
Municipal and Industrial and Rural Water Systems. For preconstruction activities.	200,000
General Facilities.	
Permanent Operating Facilities. For continued acquisition of office and O&M equipment and design of Oakes Test Area Controls.	350,000
Fish and Wildlife Facilities. For continued acquisition of land for mitigation and enhancement purposes and mitigation area development.	5,200,000
Recreation Facilities. For continued recreation development activities on Lakes Brekken-Holmes and McClusky Canal, and contract award for recreation structures on Principal Supply Works.	510,000
Other Project Costs. For transitional development.	60,000
TOTAL:	$41,300,000

B. ESTIMATED OUT-YEAR COSTS FOR SYKESTON CANAL

A fast-track schedule for construction of Sykeston Canal would envision NEPA compliance and completion of design work by January 1986, and completion of construction by fiscal year 1990.

(in $ millions)

	'85	'86	'87	'88	'89	'90	TOTAL
Sykeston Canal	1.5	2.0	2.0	13.8	13.8	6.2	39.3
Check Structures	.5	.7	.7	5.0	5.0	2.2	14.1
TOTAL	2.0	2.7	2.7	18.8	18.8	8.4	53.4

C. EARLY ACTION ITEMS

Should the Secretary direct the Bureau of Reclamation to (1) proceed with recommendations to continue design, construction, and operation of all features common to the authorized and Commission plan; (2) initiate preconstruction and design activities on features of the Commission Plan not included in the 250,000-acre plan; and (3) initiate actions necessary to satisfy NEPA on any changes to the Plan; the Bureau can proceed with the following action items in a timely manner:

1. Freshening—Continue current freshening program
   —Review and submit formal plan for Secretarial review
   —Acquire irrigated land near Painted Woods Creek
2. McClusky Canal—Improve operating condition
3. Lonetree—Begin mothballing process
   —Terminate existing contracts
   —Establish advisory group
   —Riprap channel
   —Seed 18,000 acres of cropland
4. Sykeston Canal—Begin design data collection and field exploration
   —Consult with local landowners
   —Contract survey crews
   —Plan supervisory control system
5. New Rockford Canal—Advertise for bids for Reach 1A
   —Make funds available to contractor on Reach 1B
   —Layout and design protective drains
   —Acquire land and begin designs for Reach 2
6. West Oakes Test Area—Make FY85 funds available to contractor for pumping plant
   —Complete work statement for A&E contract for control system
   —Continue work on distribution and drainage systems contracts
7. New Rockford Irrigation Area—Award aerial photography contract
   —Make landowner contacts
8. Harvey Pumping Irrigation Area—Award aerial photos contract
   —Make Landowner contacts
9. Glover Reservoir—Begin negotiations with North Dakota
   —Begin sizing studies
10. James River stabilization—Begin field investigations
    —Make landowner contacts

10. Control system--Analyze design modifications

11. NEPA documents--Initiate environmental assessment studies on McCluskey Canal operations, Glover Reservoir, and impacts of Sykeston Canal; initiate studies on James River and National Wildlife Refuges

12. Canadian consultations--Reestablish

13. Mitigation--Continue acquisition of 8,800 acres available for acquisition in FY 85 (including Kraft Slough)

14. Recreation--Refine plan and initiate preliminary planning in cooperation with State

15. Cultural Resources--Initiate analysis on project features

Bureau of Indian Affairs

1. Indian Commission--Secretary appoints five-member commission

DISCUSSION OF EARLY ACTION ITEMS

FRESHENING PROGRAM

The water quality in the canal between mile post 36 and 52 is poor (3,000 ppm TDS) due to evaporation and saline ground-water inflow to the canal at an estimated 10 ft^3/s over a 10-mile segment. A water level control and freshening program has been underway for the past 2 years with up to 40 ft^3/s being discharged down Painted Woods Creek near mile post 36 and better quality water from Audubon Lake delivered through the system to maintain water levels. There is one landowner near the confluence of the creek and the Missouri River who will claim damages due to the saline water discharges down Painted Woods Creek. Negotiations with him were terminated due to Commission activities. Pumping the canal dry was evaluated as a means of removing the undesirable water; however, the volume (14,000 acre-feet), the constant poor ground-water inflow of 10 ft^3/s and probably greater due to increased ground-water gradients, the likely damage to the canal prism, and the destruction of a significant fishery are all negative aspects of the Commission's recommended plan for freshening.

Given the increase in available time to achieve freshening due to construction of Sykeston Canal, it is anticipated that the canal water quality can be improved sufficiently to avoid negative impacts.

Recommendation - The present releases down Painted Woods Creek should continue as should attempts to freshen Audubon Lake through water surface fluctuations and circulation to Lake Sakakawea through the causeway conduit. The freshening program should be refined and altered as necessary to achieve TDS levels as low as possible prior to system operation. Efforts to acquire the irrigated property near Painted Woods Lake should be pursued immediately due to the potential for large damage claims being filed.

MCCLUSKY CANAL

Slide Repair

The canal banks and backslopes in deep cut areas have, over the years, deteriorated. Slumps have developed such that a repair program has been scheduled. Bids were received and work was scheduled to begin in September 1984; however, due to the Commission formation, the bids were cancelled and the specifications shelved.

Recommendation - The slide repair specifications should be released for bids in February 1985, with a contract award of June 1985.

Lake Holmes Outlet

This outlet provides the means for removing water from the Lake Brekken-Holmes area as well as controlling seepage and bank stability along a portion of McClusky Canal. The cost is estimated to be about $1 million and includes 7 miles of open channel and several small structures. The specification is complete and ready to be released for bid. This work had been scheduled previously, but was delayed pending the Commission Plan.

Recommendation - The specification should be sent out for bids in February 1985, with a contract award June 1985.

Canal O&M

Due to external forces, there has been a discontinuous and insufficient O&M program along the 74-mile canal. In 1985, a detailed list of corrective actions necessary to bring the canal up to acceptable standards was formulated. Work was scheduled to begin in the fall of 1984, but was halted due to Commission activities.

Recommendation - The McClusky Canal should be brought to acceptable standards of repair as soon as possible through a preplanned and prioritized O&M program. Contracts should be used as necessary in combination with existing O&M crews and equipment. The canal should be placed in operating condition as soon as possible.

LONETREE DAM AND RESERVOIR

The Commission has recommended that the partially complete dam be mothballed; that the reservoir land acquisition be completed; and that the Bureau manage the area for wildlife purposes until such time as the Secretary determine the reservoir should be compl-ted and issues involving Canada are satisfactorily resolved.

Recommendation - The existing contract should be terminated, acquired materials stored, and all plant and equipment removed from the site. Several minor work items necessary for Temporary Site Security will be contracted early in the spring of 1985. Included are cleaning, widening, and riprapping the Sheyenne River diversion channel; protecting the foundation instrumentation; essential erosion control, revegetating borrow and spoil areas; and gravel surface access roads.

Permanent site security and restoration should be completed upon Secretarial acceptance of the GDU Commission Plan. Other work in the reservoir area should be accomplished during FY85 and FY86 including termination and abandonment of telephone and powerlines to farmsteads; leveling of old buildings and fences; and fencing or otherwise marking the reservoir boundary.

Land acquisition activities include purchasing an additional 3,125 acres and concluding 10 existing and 2 or 3 new relocations. These activities should proceed as soon as the Commission's recommendations are accepted.

The development and implementation of a management plan will be extremely sensitive requiring substantial time as well as careful planning and coordination. Establishment of an advisory group involving local, State, and Federal interests should be pursued immediately. Interim seeding of up to 18,000 acres of croplands should begin in 1985 and continue in ensuing years. As the engineering and biological aspects of the plan are developed, implementation would proceed over a number of years. Onsite management of the area should be discussed with the State of North Dakota which has indicated an interest in such an arrangement.

SYKESTON CANAL

The Commission recommended that the Sykeston Canal be constructed as a functional replacement for Lonetree Dam and Reservoir. Inclusion of this canal as part of the main supply system will cause a minimum of 3 and likely 4 years delay in the availability of Missouri River water to the James River Basin. It is important that design data collection and other work necessary for design proceed as soon as possible. Landowners must be given an opportunity to provide input into the canal alinement process; therefore, personal contacts and meetings must be scheduled as early in the process as possible.

Recommendation - The preconstruction engineering and geology branches should initiate planning and drafting activities by mid-January and contract survey crews should begin work soon thereafter. Field exploration should start as soon as weather permits and would include drilling to determine lining requirements, soil stability, structural foundation information and borrow sources. Design data must be ready by April 1986, to allow contract award by October 1987. The supervisory control system planning should also begin in early 1985, so that the system is operational upon completion of the canal and related structures. This schedule would be extremely tight, but could provide water to the James River Basin by spring 1990.

Depending upon the final location of the canal, landowner reaction may be extremely adverse. For this reason, it is important that the Bureau initiate an early and well conceived acquisition program designed to minimize impacts to the greatest extent possible.

A proposed expenditure schedule would be as follows:

Program ($ Millions)	FY85	FY86	FY87	FY88	FY89	FY90
	2.0	2.7	2.7	18.8	18.8	8.4

NEW ROCKFORD CANAL

Reach 1B

The contract for this reach of canal was 75 percent complete when work was suspended on September 30, 1984. The contractor is anxious to proceed with construction as soon as weather permits.

Recommendation - Notify contractor that funds are available for the 1985 construction season as soon as possible so that plans and schedules can be developed and work initiated in early spring.

The Drainage Branch should continue as scheduled with layout and design of protective drains and lining for this canal reach, with a contract award date of April 1986.

Reach 1A

The design data for this canal reach has been submitted to the E&RC and designs are essentially complete. There are two condemnations which were delayed due to Commission activities. The canal length will be shortened by about 2 miles and the origination point is no longer at the Lonetree Dam; however, these changes are not cause for delay.

Recommendation - Award contract for Reach 1A in July 1985. Land acquisition including by imminent domain should proceed as soon as possible since canal location and rights-of-way needs are final.

Reach 2

The design of this canal reach has been held up since September 1984, becasue of Commission activities. Land acquisition for this reach has not begun as yet and will require a minimum of 9-12 months to complete. There are substantial drain and lining considerations which must be resolved and worked into the design specifications.

Recommendations - All design and specification preparations associated with this canal reach should proceed as soon as possible to achieve an award flag date of September 1985. Land acquisition activities should be initiated in January 1985 to allow sufficient time to acquite the rights-of-way.

WEST OAKES TEST AREA

Oakes Pumping Plant

The contractor was stopped on September 30, 1984, due to Commission activities. Work at the pumping plant is about 90 percent complete. Much interior work remains to be done at the plant.

Recommendation - Notify contractor that funds are available for the 1985 construction season as soon as possible so that plans and schedules can be developed and work initiated to complete the contract.

Oakes Drains

The contractor was stopped on September 30, 1984, due to Commission activities. Work on the drain contract is 76 percent complete.

Recommendation - Notify contractor that funds are available for the 1985 construction season as soon as possible so that plans and schedules can be developed and work initiated as soon as practicable.

Distribution System

The contractor suspended work on September 30, 1984, due to Commission activities. Work is approximately 28 percent complete at present. On December 17, 1984, the contractor prevailed in a legal dispute with the Bureau and, because of nonavailability of funds, the contract was terminated without liability to the United States.

Recommendation - Proceed with construction as soon as possible consistent with legal and procurement constraints.

Control System

Prior to September 30, 1984, when all design activities ceased, an A&E contract was being developed to design a monitoring and control system for the West Oakes Test Area. The control system was being developed to implement and test the downstream control concept. The monitoring system would monitor not only the distribution system in the Oakes Area, but also help in the data collection plan for the Proposed Study Plan for the 5,000-Acre West Oakes Test Area. The A&E design contract was scheduled for award by September 1984, with award to install controls by September 1985.

Recommendation - The work statement for the A&E contract should be completed. Work should then proceed toward award of the contract by April 1985, with a flag date for award of system installation by May 1987.

Aquifer Recharge

The Commission plan recommends that a research program be initiated to investigate the feasibility of an aquifer recharge program in the Oakes area.

Recommendation - - The Bureau should coordinate with the North Dakota State Water Commission and the USGS to develop a research project sufficiently detailed to determine the feasibility of the aquifer recharge/storage/ utilization concept.

NEW IRRIGATION AREAS

New Rockford Irrigation District

The New Rockford Irrigation Area is comprised of the about 21,000 acres which was part of the GDU initial stage and an additional 32,000 acres in the New Rockford Extension area included in the Commission plan. Detailed sprinkler land classification and drainage investigations are nearly complete on the New Rockford Irrigation Area, but remain to be accomplished for the New Rockford Extension.

Recommendation - Robinson Coulee Diversion Dike and channel will serve as a drain return flow system to the James River. More detailed studies and design are required including hydrology, structures, soils, geology, ground water, and surveys. Meetings will be scheduled with landowners, State, and local officials to coordinate activities. Contracts for aerial photographs, topography, and surveys are recommended.

A contract should be prepared and awarded in FY85 to obtain aerial photographs and aerial topography for 141 sections in this area in preparation for the detailed investigations to follow. Meetings will be scheduled with the Irrigation District and landowners to provide assistance in identifying and formulating the service area.

Harvey Pumping Irrigation District

Semi-detailed land classification and drainage investigations were previously accomplished in support of the Harvey Pumping Irrigation District that was organized in 1966. Detailed land classification and drainage investigations will be necessary as will meetings with the Irrigation District and landowners.

Recommendation - Contracts to obtain aerial photographs and aerial topography should be prepared for award in 1985, in advance of the detailed studies and design.

GLOVER RESERVOIR

The Commission recommended that Glover Reservoir be constructed in lieu of Taayer and that the construction be accomplished by the State of North Dakota.

Recommendation -

1. Bureau begin negotiating contract with State as soon as possible for design and construction of dam.

2. Bureau/State perform complete sizing studies for reservoir.

JAMES RIVER STABILIZATION

Bank stabilization, structure modification, channel improvement, and debris removal is necessary before the James River can convey peak discharges resulting from the GDU. The Commission plan will cause increased concern along the James River due to the addition of nearly 40,000 irrigated acres in the upper reaches of the river. Significant opposition to the Commission plan may develop unless the Bureau moves quickly and positively toward solving existing and future erosion problems along the river.

The 1976 LaMoure-Oakes EIS (DES 76-23) provides a detailed discussion of why the improvements are needed, specific work items to be accomplished, and structures required. Improvement work outlined in the DES needs to be reviewed and updated and detailed field investigations and designs need to be completed.

Recommendation - The James River Stabilization Program should be given a high priority for implementation. Field investigations and landowner contacts should begin in the spring of 1985, with a flag date for contract award in April 1987. The Bureau should immediately begin developing a public relations program to address issues which have been raised in the past regarding James River flows.

CONTROL SYSTEM DESIGN

Substitution of Sykeston Canal for Lonetree Reservoir increases project water delivery problems and mandates an extensive control system for the McClusky, Sykeston, and New Rockford Canals. Additional canal check structures may be required for the New Rockford and McClusky Canals.

Recommendations - The Secretary authorize the Bureau to begin analysis of the problems involved immediately so that a plan of action can be implemented and completed consistent with completion of Sykeston Canal.

NEPA COMPLIANCE

The Commission recommended a programmatic EIS be completed within 18 months of Congressional action confirming the Secretary's authority to implement any part of the Commission plan which is determined to be beyond current authorization; that no additional NEPA coverage be prepared on areas/activities covered by earlier NEPA documents; and that site-specific documents be prepared for changes in previously described features and new features. Many of the new features, such as municipal and industrial pipelines and irrigation of the Indian lands, are independent of one another with little or no identifiable cumulative impact. It is unlikely that the engineering, soils, and other studies for all aspects of the recommendations needed as a basis for environmental analysis could be completed in time to allow adequate NEPA compliance within 18 months. A programmatic statement describing unrelated activities would serve little purpose and convey little information to decision makers or the public. NEPA compliance has been completed for over half of the recommended irrigation acreage: New Rockford, LaMoure, and West Oakes.

Recommendation - Prepare two supplemental site specific impact statements aggregating related impacts of irrigating lands in the James River Basin and separate site specific documents addressing specific municipal/industrial water projects (based on past experience impacts will be small and FONSI's are likely) and Indian lands. The first supplement would address impacts of the Sykeston Canal, changes in McClusky Canal operation, Glover Reservoir, and impacts on the James River and National Wildlife Refuges resulting from return flows and water delivery. The second document would address impacts of the new irrigation service areas - Harvey Pumping, McClusky Canalside, New Rockford Canalside, Turtle Lake, and New Rockford Extension.

We have developed two schedules for the principal NEPA compliance efforts related to the irrigation areas. One schedule is a "Fast Track" schedule; the other a more normal schedule. They are displayed below:

	Supplement 1		Supplement 2	
	Fast Track	Normal	Fast Track	Normal
Begin	2/85	2/85	2/86	2/86
File DES	9/85	2/86	2/87	6/87
File FES	3/86	11/86	8/88	3/88

While a "Fast Track" schedule is possible, it will require the cooperative and intense efforts of several agencies. Additionally, we are concerned that our NEPA compliance will be carefully scrutinized. The normal track will be sufficient to meet construction prerequisites and is recommended.

CANADIAN CONSULTATIONS

At the time the Garrison Commission was formed, technical exchanges were taking place between Canada/Manitoba and the United States/North Dakota. Under the purview of formal consultations between the two countries, the technical exchange involved fishery/biota, engineering, wildlife, and the Oakes Test Area. The Commission recommends further interaction with the country of Canada.

Recommendation - We recommend that consultations with Canada be reestablished at an early date to (1) officially bring the country of Canada up to date on plans related to the Garrison, (2) develop a means of implementing the Commission recommendations relative to Canada, and (3) reestablish the technical exchange relative to on-going work regarding the Garrison.

MITIGATION AND ENHANCEMENT

The Commission plan recommends acre-for-acre mitigation policy with implementation occurring prior to the loss of the resource. Approximately 27,833 acres of land is required to complete mitigation. This acreage is comprised of 24,848 acres of additional restorable wetland tracts, 2,120 acres needed to round out the Kraft Slough area, and 865 acres needed to round out the Johnson Lake area.

The proposal to acquire Rush Lake as a mitigation area is a unique and valuable resource and has received widespread support. The Rush Lake area will include 7,650 acres when fully acquired. At present, about 3,600 acres of that land has been appraised and offers are ready to be made. An additional 1,630 acres is available within the proposed Rush Lake boundary from willing sellers. An additional 1,110 acres of high-value wildlife land in other areas have been appraised for acquisition.

Other lands offered by willing sellers are reviewed by biologists from the BR, NDG&F, and FWS. There presently are 2,470 acres of land which have been recommended for acquisition by these biologists and have not been appraised.

Recommendation - Approximately 8,800 acres of mitigation and enhancement lands could be acquired in FY85. The highest priority should be given to the Rush Lake lands which have been appraised.

Also, the Joint Federal-State Committee established in 1982 to provide oversight and direction to mitigation and enhancement matters, should continue. The Commission plan proposal of a new Advisory Council should be adopted upon Congressional approval of the Commission's plan.

RECREATION

The Commission plan recommends that the GDU recreation features be as described in the State plan dated November 1984. The North Dakota State Parks and Recreation Department worked closely with the Bureau of Reclamation and Garrison Diversion Conservancy District in evaluating the overall Garrison Diversion Unit (GDU) recreation plan. Based on a series of 1984 public meetings, the State proposed broad changes to the initial recreation plan. These have subsequently been recommended by the GDU Commission.

JAMES RIVER MONITORING PROGRAM

The Commission recommended that James River flow and quality monitoring program be instituted. USGS has an existing cooperative monitoring program on the James River. This program can be expanded to include timely or even real-time reporting of data.

Recommendation - The Bureau of Reclamation in conjunction with the USGS develop a coordinated monitoring program for the James River. The monitoring program should be developed cooperatively with the States of North Dakota and South Dakota.

APPENDIX A -- DETAILED LIST OF COMMISSION RECOMMENDATIONS IN ITS FINAL REPORT

I. Recommendations in "Executive Summary"

1. Taayer Reservoir will be replaced by a reservoir to be located near Glover, North Dakota. (pg. ii, par. 2)

2. The Taayer site would be protected in perpetuity for wildlife purposes. (pg. ii, par. 2)

3. Construction of Sykeston Canal for the purpose of connecting the McClusky and New Rockford Canals as principal supply works. (pg. ii, par. 2)

4. Land acquisition to be completed at the Lonetree Dam and Reservoir site (pg. ii, par. 2)

5. Ownership of Lonetree Dam and Reservoir to be retained by the United States (pg. ii, par. 2)

6. The Bureau of Reclamation should enter into an agreement with the State of North Dakota for wildlife management of the area. Such management is to be conducted in a fashion that does not preclude future use as a reservoir should future water storage needs so require, and environmental and international concerns permit Lonetree Dam to be completed. (pg. ii, par. 2)

7. All irrigation should be restricted to lands that drain into the Missouri River Basin. (pg. ii, par. 3)

8. The current consultation process with Canada should continue with particular emphasis on those Commission Plan elements designed to avoid potential international impacts. (pg. ii, par. 3)

9. Part of the power revenue repayment assistance previously reserved for the Garrison Diversion Unit irrigation function should be shifted to the municipal, rural, and industrial water supply function to help meet capital costs. (pg. iii, top of pg.)

10. The Secretary of the Interior should establish a five-member commission to assess and report on possible steps necessary to complete indemnification of Indian communities of North Dakota. (pg. iii, par. 1)

11. A National Environmental Policy Act Task Force should be established to assess any element of the plan not covered adequately under earlier environmental compliance. (pg. iii, par. 2)

12. The Secretary of the Interior should submit legislation by February 15, 1985, or as soon as practicable, to assure authority to implement any part of the Commission Plan which is determined to be beyond current authorization. (pg. iii, par. 2)

13. If such legislation is not signed into law by the *sine die* adjournment of the 99th Congress, its plan should be withdrawn and the 1965 Initial Stage of the Garrison Diversion Unit be reinstated except for any features of the Commission Plan which Congress may have authorized. (pg. iii, par. 2)

14. Of the $401,200,000 cost for municipal, rural, and industrial water systems, $40,500,000 is to be considered non-reimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909. (pg. 2, par. 4)

15. $1,340,000 of estimated operation and maintenance costs is to be considered non-reimbursable as an obligation of the United States toward maintaining its commitments under the Boundary Waters Treaty of 1909. (pg. 2, par. 6)

II. Recommendations in "Conclusions and Recommendations"

16. The plan described in Appendix D, which is incorporated as a part of this recommendation, should be implemented in place of the plans set out by the Bureau of Reclamation and described as the 250,000-Acre Initial Stage of the Garrison Diversion Unit as authorized in 1965 or the original project authorization in 1944. (pg. 3, par. 2)

17. Lonetree Reservoir remains an authorized feature of the Commission Plan, but completion of its construction is deferred pending a determination of need by the Secretary of the Interior and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought. (pg. 3, par. 3)

18. The originally authorized 3-1/8-percent discount rate will be used for all project purposes including repayment by water users of municipal, rural, and industrial water systems. (pg. 3, par. 4)

19. Costs of construction, operation, maintenance, and replacement of a treatment plant for releases to the Sheyenne River are recommended to be non-reimbursable. (pg. 3, par. 4)

20. The Secretary of the Interior should proceed immediately to construct those portions of the Commission Plan that are a part of the authorized 1965 Initial Stage. (pg. 3, par. 5)

21. The Secretary should propose enabling legislation to Congress by February 15, 1985, or as soon as practicable, to assure authority to implement any part of the Commission Plan which is determined to be beyond current authorization. (pg. 3, par. 6)

22. If, by the sine die adjournment of the 99th Congress, legislation authorizing the Secretary to implement the Commission Plan has not been enacted into law, the Commission recommends that the Initial Stage Garrison Diversion Unit be carried forward and all recommendations of the Commission be dismissed except features of the Commission Plan which were previously authorized by Congress. (pg. 3, par. 6; continues top of pg. 4)

23. The Secretary of the Interior should proceed immediately with advance planning actions leading to preconstruction reports, NEPA compliance, final designs, and prompt implementation of the remaining features of the Commission Plan, in close coordination with the State of North Dakota. (pg. 4, par. 1)

24. Mitigation for project implementation losses should be accomplished on an acre-for-acre basis, based on ecological equivalency. (pg. 4, par. 2)

25. Implementation of the project mitigation strategy will be theresponsibility of the implementing bureau or agency, in consultation with the Federal Advisory Council to be established. (pg. 2, par. 2)

26. Mitigation for impacts to National Wildlife Refuge System and North Dakota Game and Fish Department lands acquired, in part, with Federal monies would be implemented in accordance with the Fish and Wildlife Coordination Act, National Wildlife Refuge System Administrative Act of 1966 (16 U.S.C. 688dd), and Federal Aid to Wildlife Act (16 U.S.C. 6991), their respective regulations (50 CFR 29 and 80), and other appropriate legislative mandates. (pg. 4, par. 3)

27. A Federal Advisory Council should be established to provide continuing oversight, coordination, and management of wildlife programs associated with the Commission Plan. The 10-member council will be composed of (a) three residents of the State of North Dakota and three residents of other states, all having extensive professional experience in waterfowl and wetlands management; (b) the Commissioner of the North Dakota Department of Agriculture; (c) the Commissioner of the North Dakota Game and Fish Department; (d) the Regional Director of the Bureau of Reclamation; and (e) the Regional Director of the U.S. Fish and Wildlife Service (USFWS). The Regional Director of USFWS will serve as chairman and the Designated Federal Representative. The Advisory Council will review the wildlife program and annually make recommendations for any needed revisions for consideration by the Secretary of the Interior, the Governor of North Dakota, and the managing agencies. On a case-by-case basis, the Council will make recommendations as to whether the Secretary of the Interior's eminent domain authority should be used for implementation of the wildlife program. (pg. 4, par. 4)

28. Municipal, rural, and industrial (MR&I) systems should be established for treatment and delivery of quality water to approximately 130 communities in North Dakota. (pg. 5, par. 1)

29. Pick-Sloan Missouri Basin Program preference power, which has been previously reserved for irrigation pumping purposes, is recommended to be made available for operation of these systems. (pg. 5, par. 1)

30. A municipal and industrial water treatment plant with a capacity of 100 cubic feet per second is recommended to provide filtration and disinfection of water releases to the Sheyenne River for use in the Fargo and Grand Forks areas in accordance with the results of Canadian consultation. (pg. 5, par. 2)

31. The costs of construction, operation, maintenance, and replacement of the Sheyenne release feature should be considered non-reimbursable as the investment is being made solely for the purpose of maintaining good relations between the United States and Canada. (pg. 5, par. 2)

32. The configuration and character of the MR&I water systems and the location and character of facilities to treat water supplies shall be determined through a planning process of the bureau or agency that will implement these recommendations. (pg. 5, par. 3)

33. An important consideration of system design shall be cost effectiveness. (pg. 5, par. 3)

34. The Secretary should consider strategies similar to those used for the WEB Pipeline Project in South Dakota where local entities assume project leadership with appropriate oversight by the Secretary or his designee. (pg. 5, par. 3)

35. The configuration of the systems shall be based on the ability and willingness of water users to assume financial responsibility. (pg. 5, par. 4)

36. Appropriate investigations shall be made to assure early implementation as minimum cost. (pg. 5, par. 4)

37. Capital cost repayment assistance should be provided, if necessary, to lower the additional monthly family cost to $10 or to the operation and maintenance costs of the system, whichever is greater. (pg. 5, par. 4)

38. Repayment assistance shall be provided without interest by reassigning a portion of the irrigation repayment assistance from the Initial Stage of the Garrison Diversion Unit. (pg. 5, par. 4)

39. The Secretary should review the estimate every 5 years and provide provisions in contracts to make appropriate adjustments. (pg. 5, par. 4)

40. For those municipal and industrial systems that will deliver Missouri River water to communities in the Hudson Bay drainage, it is recommended that the United States consult with the Government of Canada on plans and methodologies before implementation. (pg. 5, par. 5)

41. The Garrison Diversion Unit should be configured to provide irrigation service to 130,940 acres in the Missouri River and James River drainages of North Dakota. (pg. 6, par. 2)

42. Drainage modifications should be provided to treat return flows, or to collect and pump return flows to the principal supply works or another suitable Missouri Basin disposal point for the Lincoln Valley area. (pg. 6, par. 3)

43. Alternatively, it is recommended that an equivalent acreage in the West Oakes Extension area be substituted should no cost-effective measures to manage Lincoln Valley return flows be identified. (pg. 6, par. 3)

44. Lonetree Dam should not be completed at this time and the Sykeston Canal should be constructed as a functional replacement. (pg. 6, par. 4)

45. Construction of Lonetree Dam should be deferred pending a determination by the Secretary of the Interior consisting of a demonstration of need and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought. (pg. 6, par. 4)

46. Land acquisition should be completed at the Lonetree Reservoir site. (pg. 6, par. 5)

47. The area is to be retained in United States ownership and managed for wildlife purposes by the State in accordance with the Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.. The Bureau of Reclamation shall enter into an appropriate management arrangement with the State relative to the lands of the Lonetree Reservoir site. (pg. 6, par. 5)

48. The Sheyenne Lake National Wildlife Refuge should be replaced pursuant to the National Wildlife Refuge System Administration Act. (pg. 6, par. 5)

49. The Secretary should initiate efforts to purchase Kraft Slough in its entirety, to be managed in perpetuity for its wildlife values by the appropriate Federal or State agency. (pg. 6, par. 7)

50. These wildlife values shall be credited as mitigation for habitat losses incurred elsewhere. (pg. 7, top of page)

51. The first phase (17,000 acre-feet) of the Glover Reservoir should be included as a feature of the plan in lieu of Taayer Reservoir for reregulation of flows along the lower James River. The Bureau of Reclamation should enter into a memorandum of agreement with the State of North Dakota for state construction of the first phase of Glover Reservoir using Garrison Diversion Unit appropriations. (pg. 7, par. 1)

52. Development of recreation features should be completed concurrent with other project construction. Recreation features should include 3 State Parks developments, 11 county and city recreation areas, and 3 trails, as included in the Commission Plan (Appendix D) and referenced in the State of North Dakota Plan for Development of the Garrision Diversion Unit, September 1984, with appropriate adjustment to reflect the deferral of Lonetree Reservoir. (pg. 7, par. 2)

53. Best Management Practices should be included as a requirement in contracts executed for repayment or water service, and these practices should be monitored in compliance with State law on all irrigated areas that might contribute to return flows. (pg. 7, par. 3)

54. Stream flow and quality in the James River should be monitored. (pg. 7, par. 4)

55. Such volumes of water from project features should be provided as are needed to maintain the salinity concentrations of water at the South Dakota border at a level no higher than the pre-project historical monthly average. Such releases will be made by the operating agency in consultation with the State. (pg. 7, par. 4)

56. The current Lake Audubon and McClusky Canal water freshening program should reevaluated, including an examination of alternative approaches to reduce salinity levels prior to start of project operation. In particular, the feasibility of reverse draining Lake Audubon into Lake Sakakawea and pumping back McClusky Canal waters into Painted Woods Creek shall be evaluated. (pg. 7, par. 5)

57. The Secretary should direct the Bureau of Reclamation to develop a program to freshen the Lake Audubon/McClusky Canal system to the extent that is economically and technically feasible. (pg. 7, par. 6)

58. The terms and conditions of the Boundary Waters Treaty should be honored. (pg. 7, par. 6)

59. Missouri River water conveyed into the Hudson Bay drainage as part of the Commission Plan shall be treated in a manner determined acceptable pursuant to United States-Canadian consultations. (pg. 8, top of page)

60. Costs of features or modifications to features of the Commission Plan attributable to meeting requirements of the Boundary Waters Treaty of 1909 should be considered non-reimbursable. (pg. 8, top of page)

61. The Commission recommends a one-time baseline survey of species and pathogens in waters of the Hudson Bay drainage, to be the responsibility of an independent international organization not affiliated with the Governments of the United States or Canada. The scientific team should include qualified technical specialists from the State of North Dakota, the Province of Manitoba, the United States, and Canada, and should be funded as part of the Commission Plan. (pg. 8, par. 1)

62. A mechanism should be developed and initiated at the earliest practicable time for appropriate parties to negotiate the issue of irrigation water deliveries to Hudson Bay drainage areas of North Dakota. (pg. 8, par. 2)

63. The Secretary of the Interior should encourage the parties to meet at specified 6-month intervals for this purpose until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water to the affected area(s). (pg. 8, par. 2)

64. The Secretary of the Interior should initiate discussions with the Department of State to pursue negotiation of modification to the 1909 Boundary Waters Treaty to more precisely define the word "pollute" for Treaty purposes and make other changes of a mutually appropriate nature. (pg. 8, par. 3)

65. The Secretary of the Interior should define a program whereby appropriate authorities of the United States and Canada, in consultation with representatives of the Province of Manitoba and the State of North Dakota, begin during 1985 to explore establishment of a Bi-National Resource Development Program. (pg. 8, par. 4)

66. 15,200 acres of Indian lands of the Lucky Mound and Upper Six Mile Creek irrigation areas of the Fort Berthold Reservation should be developed. (pg. 8, par. 5)

67. Delay implementation of the second area until the first is determined by the implementing agency to be successful. (pg. 8, par. 5)

68. Should the Standing Rock Sioux Tribe request, irrigation assistance should also be provided for the 2,380-acre Fort Yates irrigation area on the Standing Rock Reservation. (pg. 9, par. 1)

69. Irrigation of lands on the Fort Totten Reservation with Missouri River water should not be undertaken until potential problems with biota transfer into Canadian waters are resolved. (pg. 9, par. 1)

70. Municipal water supply needs of the Fort Berthold, Standing Rock, and Fort Totten Reservations shall be satisfied. (pg. 9, par. 1)

71. Facilities for Indian reservations which are a part of the Commission Plan should be implemented with Bureau of Reclamation appropriations, using pumping power from the Pick-Sloan Missouri Basin program, with repayment made pursuant to the Leavitt Act. (pg. 9, par. 1)

72. The Secretary should intercede with the Army Corps of Engineers to seek access rights for the tribes to develop recreation opportunities along the shorelines of Lakes Sakakawea and Oahe. (pg. 9, par. 2)

73. The Secretary should promptly encourage initiation of Congressional oversight hearings on Indian water rights in the Missouri River Basin. (pg. 9, par. 3)

74. The Secretary should provide assurances to the Three Affiliated Tribes of Fort Berthold (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux that all previous legally binding commitments and/or treaties of the United States made in conjunction with lands taken and values therof for the creation of Lakes Oahe and Sakakawea will be fulfilled. (pg. 9, par. 4)

75. No later than January 31, 1985, the Secretary should appoint a five-member commission of which no fewer than two members are representatives of Indian Tribes. The Commission will report to the Secretary no later than October 1, 1985, regarding the following items on the Fort Berthold and Standing Rock Reservations:

- Full potential for irrigation,
- Financial assistance for on-farm development costs,
- Replacement of infrastructures lost by the creation of Garrison Dam and Lake Sakakawea and Oahe Dam and Lake Oahe,
- Preferential rights to Pick-Sloan Missouri Basin power,
- Development of shoreline recreation potential,
- Return of excess lands,
- Additional financial compensation,
- Protection of reserved water rights,
- Other items the five-member Commission may deem appropriate,
- Funding of all items above from the Garrision Diversion Unit funds, if authorised. (pg. 9, par. 5)

76. The desires of the Devils Lake Sioux for the freshening of Devils Lake should be given due regard. (pg. 9, par. 6)

77. Any investment related to full design capacities of features that are not employed in the Commission Plan shall be absorbed as a reasonable cost of satisfying the Federal obligation to the State of North Dakota and therefore will be non-reimbursable. (pg. 10, par. 1)

78. If the full capacities of those project features are used in some future expansion of the project, those non-reimbursable costs should be reassigned to purposes for which the features are used. (pg. 10, par. 2)

79. The existing Lonetree Dam foundation and other works at that site should be preserved intact to assure their possible use at some future time. (pg. 10, par. 3)

80. The viable concepts of satellite well fields and the West Oakes aquifer recharge concept should be investigated commencing in 1985. (pg. 10, par. 4)

81. When compared to other features of the Commission Plan, the most cost-effective systems should be implemented. (pg. 10, par. 4)

82. The progress of these investigations should be reported at least twice annually to the Secretary of the Interior and the Governor of North Dakota until such time as these concepts are implemented or otherwise abandoned. (pg. 10, par. 4)

83. Construction of an outlet from the Devils Lake system to the Sheyenne River and future funding for an inlet to the Devils Lake system should be considered. Initiation of either feature shall be based on the outcome of current Corps of Engineers studies, NEPA compliance, permitting reviews, and satisfactory completion of consultations with Canada. (pg. 10, par. 5)

84. The James River channel should be employed as the conveyance facility to supply irrigation water to the LaMoure and Oakes irrigation areas. (pg. 10, par. 6)

85. Those channel changes and mitigation measures should be implemented which are determined necessary to use the James River as the principal southern conveyance system. Bypass canals and other structural and/or management measures to reduce return flow impacts to Arrowwood and Sand Lake Refuges shall be investigated, and appropriate measures implemented to lessen refuge impacts. (pg. 10, par. 7)

86. The Secretary should urge the State to determine an appropriate reallocation of funding responsibilities among its citizens through a special committee of appropriate composition. (pg. 11, par. 1)

87. The State of North Dakota should review the organizational structure of its political subunits that exist in North Dakota for implementing the Garrison Diversion Unit in order to make equitable adjustments consistent with implementation of the Commission Plan. (pg. 11, par. 1)

88. NEPA compliance completed for project features common to the authorized project and to the Commission Plan should be considered adequate, assuming no supplementation is required and implementation of those common features proceed immediately. The project features in this category include:

Snake Creek Pumping Plant
McClusky Canal
New Rockford Canal
James River Feeder Canal
Jamestown Dam and Reservoir
New Rockford Irrigation Area
Robinson Coulee/James River Diversion
LaMoure Irrigation Area
West Oakes Irrigation Area
West Oakes Pumping Plant and Canal
(pg. 11, par. 2)

89. Wildlife mitigation for the above features should continue to be implemented during further project NEPA compliance. (pg. 11, par. 3)

90. Programmatic NEPA compliance for the Commission Plan should be concluded within 18 months of congressional action confirming the Secretary's authority to implement any part of the Commission Plan which is determined to be beyond current authorization. (pg. 11, par. 4)

91. Separate NEPA compliance documents may be prepared for Indian features or municipal, rural, and industrial water delivery systems which do not use the Garrison Diversion Unit principal supply works. (pg. 11, par. 4)

92. For features of the Commission Plan not previously considered under NEPA, or features which have changed significantly since previous NEPA compliance, site-specific NEPA compliance should be completed prior to initiating construction of those features. (pg. 11, par. 5)

93. The Secretary should establish an Environmental Impact Task Force with the Bureau of Reclamation as lead agency and the State of North Dakota, Bureau of Indian Affairs, Fish and Wildlife Service, Environmental Protection Agency, Indian Tribes, and other appropriate entities as cooperating agencies. (pg. 12, par. 1)

III. Recommendations in Appendix D — Commission Plan

D-1. The Sykeston Canal is modified to convey up to 1,600 cubic feet of water from the McClusky Canal to the New Rockford Canal. (pg. 32, par. 4)

D-2. Irrigation service would be extended to a total of 130,940 acres in nine non-Indian irrigation areas and three irrigation areas on Indian reservations. (pg. 32, par. 5)

D-3. The MR&I systems would use closed pipelines, open channels, and, in some cases, local ground-water treatment facilities to remove iron and manganese. (pg. 33, par. 1)

D-4. Capital repayment assistance from power revenues will be provided to lower the additional monthly family cost to $10, or to the operation and maintenance costs of the system, whichever is greater. (pg. 35, par. 1)

D-5. In the event that the total family cost, including capital repayment with interest and operation and maintenance costs, is less than $10, the actual costs would be assessed for repayment. (pg. 35, par. 1)

D-6. The $10 additional monthly family cost (1984 dollar) should be reviewed every 5 years and adjusted accordingly. (pg. 35, par. 1)

D-7. The Secretary should consider strategies similar to those used for the WEB Pipeline Project in South Dakota where local entities assume project leadership with appropriate oversight by the Secretary or his designee. (pg. 35, par. 2)

D-8. The Commission recommends under its legislative mandate to consider institutional equity, (in accordance with Public Law 98-360, Section 207 (c)(2)(H)) that assurances be given to both the Three Affiliated Tribes of Fort Berthold Reservation (the Mandan, Hidatsa, and Arikara) and the Standing Rock Sioux, that all previous legally binding commitments and/or treaties of the United States in conjunction with lands taken and values thereof for the creation of Lakes Oahe and Sakakawea will be fulfilled. (pg. 35, par. 3)

D-9. Of the total capital costs, $854 million would be repaid by power consumers, $44 million by irrigators, $41 million by municipal users, and $16 million would be repaid from other sources. Non-reimbursable costs totalling $164 million include those for abandoned features, flood control, 25 percent of fish and wildlife enhancement costs, $76 million construction, and Indian irrigation development for which repayment may be deferred under the Leavitt Act, and costs associated with protecting the quality of water entering the Hudson Bay drainage pursuant to the Boundary Waters Treaty of 1909. (pg. 36, par. 1)

D-10. Of the $213,370,000 sunk costs, $35,920,000 are considered to be abandoned. (pg. 39, mid-page)

D-11. The Commission proposes to leave Kraft Slough in its natural state without impact and be purchased in its entirety as mitigation and managed in perpetuity for its wildlife values. (pg. 40, par. 2)

D-12. The area of Lonetree Reservoir will be considered as a potential reservoir site. However, it can be used in the interim for wildlife purposes provided such use will not prohibit its future use as a reservoir site. (pg. 40, par. 3)

D-13. Interim wildlife values will be credited to a mitigation ledger. (pg. 40, par. 3)

D-14. Lonetree land acquisition should be completed. (pg. 40, par. 3)

D-15. The site should be retained in ownership by the United States. (pg. 40, par. 3)

D-16. It should be managed under agreement with the State of North Dakota for wildlife purposes in accordance with the Fish and Wildlife Coordination Act. (pg. 40, par. 3)

D-17. Mitigation will be implemented on an acre-for-acre basis, replacing lost lands with their ecological equivalent as determined by (1) the type of wildlife use (for wetlands and contiguous uplands), and (2) equivalent vegetative cover (for woodlands and other uplands). (pg. 40, par. 6)

D-18. Mitigation for impacts to National Wildlife Refuge lands and North Dakota Game and Fish Department lands acquired in part with Federal monies would be implemented in accordance with the National Wildlife Refuge System Administrative Act of 1966 (16 U.S.C. 688dd) and Federal Aid to Wildlife Act (16 U.S.C. 669i), their respective regulations (50 CFR 29 and 80), and other appropriate legislative mandates. (pg. 40, par. 6)

D-19. Priorities for means of mitigation would be restoration of drained wetlands, followed by creation of new wetlands, and then acquisition of existing wetlands. Other wildlife habitat types would be mitigated in the same order. (pg. 42, par. 1)

D-20. Drainage into project conveyance and drainage facilities from non-project lands in violation of policy or State law would be considered as a mitigable loss. (pg. 42, par. 1)

D-21. A detailed mitigation plan will be developed based upon project design and be periodically updated to reflect project changes. (pg. 42, par. 2)

D-22. The mitigation program will be adjusted to compensate for unanticipated losses and for latent losses or benefits as they are determined. (pg. 42, par. 2)

D-23. A mitigation ledger will be maintained to allow flexibility in mitigation timing and permit valuable wildlife habitat to be acquired and banked as a credit to the mitigation plan in advance of need. (pg. 42, par. 2)

D-24. Mitigation measures will be implemented prior to loss of the resource and unfulfilled mitigation from past project losses need to be completed. (pg. 42, par. 3)

D-25. Prorata enhancement measures will be implemented concurrently with mitigation. (pg. 42, par. 3)

D-26. No less than 5 percent of all annual project-related capital expenditures will be made available for mitigation and enhancement purposes to keep mitigation measures equal to mitigation and enhancement programs. (pg. 42, par. 3)

D-27. If necessary the ratio of mitigation and enhancement to construction may be increased to assure that mitigation and enhancement maintain parity within the construction schedule. (pg. 42, par. 3)

D-28. The Secretary of the Interior should establish a Federal Advisory Council to review implementation plans, budgetary requirements, and program results. The Advisory Council should be composed of three residents of the State of North Dakota and three residents of other States, all having extensive professional experience in waterfowl and wetlands management; and the Commissioner of the North Dakota Department of Agriculture and the Commissioner of the North Dakota Game and Fish Department; the Regional Director of the Bureau of Reclamation; and the Regional Director of the U.S. Fish and Wildlife Service. The Regional Director of USFWS would serve as chairman and the Designated Federal Representative. The Advisory Council would meet twice a year, review the wildlife programs and annually make recommendations for any needed revisions to the wildlife resource management programs for consideration by the Secretary of the Interior, the Governor of North Dakota, and the managing agencies. (pg. 42, par. 4)

D-29. The Advisory Council would make recommendations concerning the need for use of eminent domain authority to obtain satisfactory implementation of wildlife programs on a case-by-case basis. (pg. 43, par. 1)

D-30. Included in the Lonetree mitigation credit is the proviso that acquisition in the site be completed to facilitate management, and remove the refuge status of Sheyenne Lake pursuant to the exchange of land provisions in the National Wildlife Refuge Act. Therefore, the Johnson Lake tract acquisition should be completed and the area be used to replace Sheyenne Lake Refuge. (pg. 43, par. 3)

D-31. A total of 82,699 acres are needed for mitigation and enhancement. (pg. 43, par. 4)

D-32. When the new master contract is negotiated to implement the Commission's recommendations, present conditions should be the basis for developing new ratios between mitigation and enhancement. (pg. 43, par. 4)

D-33. The figure is an estimate of the acre-for-acre replacement; however, it should be refined for eventual mitigation plan. (pg. 43, par. 5)

D-34. In developing and implementing the mitigation plan, the implementing agencies, with the oversight of the Federal Advisory Council, will reassess the data to arrive at a specific mitigation strategy within the limits of cost constraints based upon estimates contained in this report. (pg. 43, par. 5 and pg. 44, top of page)

D-35. The acquisition and development of the recreation features would be concurrent with other project construction. Funding would be on a 50-50 ratio. (pg. 44, par. 2)

D-36. The current freshening program should be reevaluated along with an examination of alternative approaches to reduce salinity levels in Lake Audubon and the McClusky Canal. In particular, the feasibility of reverse draining Lake Audubon into Lake Sakakawea, and backpumping the McClusky Canal, should be considered. (pg. 45, par. 1)

D-37. The Secretary should direct the Bureau of Reclamation to develop a program to freshen the Lake Audubon/McClusky Canal system to the extent that is economically and technically feasible. (pg. 45, par. 1)

D-38. To offset the increase in salinity, such quantities of dilution water shall be released as required to maintain monthly discharge weighted average salinity concentrations at the South Dakota border at or below the pre-project historical discharge weighted average. (pg. 45, par. 2)

D-39. Best Management Practices should be required and monitored on all irrigated areas that might contribute to return flows of the James River system. (pg. 45, par. 4)

D-40. Streamflow and quality should continue to be monitored. (pg. 45, par. 5)

D-41. Waters delivered into the Hudson drainage for municipal and industrial use would be filtered and disinfected to prevent transfer of objectionable fish species and pathogens. (pg. 46, par. 2)

D-42. Prior to delivery of treated Missouri River water into the Hudson Bay drainage basin, however, a comprehensive inventory of fish species and pathogens present in Manitoban waters should be conducted by an independent international body to provide a baseline of current conditions. (pg. 46, par. 2)

D-43. A bi-national mechanism should be established, through negotiations and cooperative study by appropriate agencies and independent entities, to define ways to exchange resources, including water, power, minerals, and markets to meet mutual needs. (pg. 46, par. 3)

Two key elements would be addressed at least initially in developing this mechanism: (1) the initiation of strategies for mutually beneficial irrigation and MR&I water development with North Dakota, Manitoba, and Saskatchewan, and (2) the acquisition of wildlife habitat in the region.

D-44. The Secretary of the Interior should proceed immediately with (1) construction of those portions of the Commission Plan that are contained in the project, as set forth in the Initial Stage 250,000 Acre Plan, and (2) actions leading to final designs for early implementation of the Commission Plan. (pg. 47, par. 3)

D-45. The Secretary should propose enabling legislation to Congress by February 15, 1985, or as soon as practicable, to assure sufficient authority to implement the Commission Plan. (pg. 47, par. 3)

D-46. If, by the *sine die* adjournment of the 99th Congress, legislation authorizing the Secretary to implement the entirety of the Commission Plan has not been enacted into law, the Commission recommends the Initial Stage Garrision Diversion Unit be carried forward and all recommendations of the Commission be dismissed except as to features of the Commission Plan which were previously authorized by the Congress. (pg. 47, par. 3)

D-47. NEPA compliance for features carried over from the authorized project should be deemed adequate for immediate implementation where those features have been adequately evaluated in a previous Final Environmental Statement (FEIS) and the implementation of the Commission Plan does not require supplementation to any FEIS. (pg. 47, par. 4)

D-48. Mitigation, however, should be based on replacement on an acre-for-acre basis with ecological equivalency to the extent possible. (pg. 47, par. 4)

D-49. For other features of the plan, the NEPA compliance process should be compressed into an 18-month period following congressional authorization. (pg. 47, par. 4 and top of pg. 48)

D-50. The Secretary should establish an Environmental Impact Task Force with the Bureau of Reclamation as the lead agency and the State of North Dakota, Fish and Wildlife Service, Bureau of Indian Affairs, Environmental Protection Agency, Indian tribes, and other appropriate entities as cooperating agencies. (pg. 48, par. 3)

D-51. Upon authorization of the Commission Plan, the 1966 Master contract with the State of North Dakota, the Garrison Diversion Conservancy District, and any other contracts subsidiary to the Master Contract should be renegotiated to secure the non-Federal operation and maintenance, replacement, and capital repayment obligations for the Commission Plan in a manner comparable to that developed pursuant to the 1965 authorization of the Initial Stage of the Garrison Diversion Unit, and in accordance with current Reclamation law and departmental policy. (pg. 48, par. 4)

D-52. Feasibility studies of Oakes ground water recharge should be completed prior to making decisions which would foreclose the opportunity to take advantage of this concept. (pg. 49, top of page)

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APPENDIX B

gdcd
GARRISON DIVERSION CONSERVANCY DISTRICT

MURRAY G. SAGSVEEN
SPECIAL ASSISTANT ATTORNEY GENERAL

P.O. BOX [illegible]
BISMARCK, ND 58502
TELEPHONE 701-223-2711

December 19, 1984

The Honorable Quentin N. Burdick
United States Senator
Attention: Sara Garland
511 Hart Office Building
Washington, D.C. 20510

The Honorable Mark Andrews
United States Senator
Attention: Peter Page
724 Hart Office Building
Washington, D.C. 20510

The Honorable Byron Dorgan
United States Congressman
Attention: Barbara Rohde
238 Cannon Building
Washington, D.C. 20515

SUBJECT: Garrison Diversion Unit Commission Recommendation

Enclosed is a draft policy statement (less exhibits) prepared by Al Kramer and me. The draft policy statement will be submitted to the Board of Directors (during the January 3-4, 1985, quarterly meeting in Carrington) for its consideration and possible approval. We would appreciate any comments that you may have prior to the meeting.

Please note that paragraph III.A of the policy statement builds upon a paragraph in a December 13, 1984, press release from the GDU Commission. The release stated, in part: "Provisions of the legislation establishing the Commission require the Secretary to commence construction beginning January 2, 1985, of those Garrison facilities common to the recommended plan and the originally authorized Garrison Diversion Unit".

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Also enclosed is a statement that Governor Olson and Governor-Elect Sinner submitted to the Commission after the December 14 Commission meeting in Minot. The statement specifically addresses their concerns about the M & I aspects of the Commission recommendation.

Sincerely,

Murray G. Sagsveen

MGS:jc
Enclosures
c: Governor Olson
Governor-Elect Sinner
Attorney General Wefald
Attorney General-Elect Spaeth
Al Kramer, Manager, GDCD
Vern Fahy, State Engineer

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GARRISON DIVERSION CONSERVANCY DISTRICT POLICY STATEMENT

Board of Directors
Garrison Diversion Conservancy District

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January 3, 1985

I. Introduction

This is a policy statement by the Board of Directors, Garrison Diversion Conservancy District (GDCD), concerning the Garrison Diversion Unit Commission Recommendation to the Secretary of the Interior.

II. Factual Background

The Garrison Diversion Unit Commission was established by Public Law 98-360 "to review the contemporary water development needs of the State of North Dakota and propose modifications to the Garrison Diversion Unit consistent with the existing authorization".

After three hearings, the Commission has submitted a final recommendation to the Secretary of the Interior. The Commission has recommended, among other things, that Sykeston Canal be built instead of Lonetree Reservoir, that Taayer Reservoir not be constructed because of the wildife values of Kraft Slough, that the 1982 mitigation and enhancement plan be rejected and that M & I development be a predominant component of the Garrison Diversion Unit. A summary of the final recommendation is attached as Exhibit A.

The Board of Directors has reviewed the final recommendation and is prepared to adopt a policy concerning the recommendation.

III. Policy Statement

The Board of Directors approves the following policy concerning the final recommendation of the Garrison Diversion Unit Commission:

A. The Secretary of the Interior should immediately resume construction of those features common to the authorized Garrison Diversion Unit (as described in the 1974, 1979 and 1983 environmental statements) and the Commission recommendation.

B. The Secretary should immediately direct the Bureau of Reclamation to prepare a programatic environmental statement concerning the Commission's recommendation with particular emphasis upon the operation of a Garrison Diversion Unit with a Sykeston Canal instead of the Lonetree Reservoir. Pursuant to 42 U.S.C. 4332(C), the environmental statement should be prepared before the Secretary submits to Congress any report or recommendation for legislation authorizing the Sykeston Canal for the Garrison Diversion Unit. The States of North Dakota and South Dakota should be invited to participate in the development of the necessary environmental statements.

C. The Secretary should immediately submit a recommendation to Congress concerning the M & I aspects of the Garrison Diversion Unit Commission final report. The Secretary's recommendation should incorporate suggestions of Governor Olson and Governor Sinner (Exhibit B).

D. The Secretary should redesignate the principal supply works and the James River features of the Garrison Diversion Unit as the Dakota Unit. Such a redesignation would emphasize the interstate aspect of the project and would be consistent with the Organic Law (Act of March 2, 1861; 12 Stat. 239) which created Dakota Territory. Section 20 of the Act stated: "And be it further enacted, that the river in said territory heretofore known as the 'River aux James,' or 'James River', shall hereafter be called the Dakota river."

E. The Board will postpone a final decision concerning Sykeston Canal (i.e., whether to support or oppose the final recommendation of the Commission) until the Bureau has prepared an environmental statement concerning the Sykeston Canal and the operation of the GDU with a Sykeston Canal instead of Lonetree Reservoir.

F. The Board will not oppose acquisition of mitigation and enhancement land in the Rush Lake area by the Bureau of Reclamation until a final decision (by Congress or the Secretary) is made concerning Lonetree Reservoir. However, any land acquired by the Bureau should not be placed in the National Wildlife Refuge System.

IV. Implementation

The Manager shall forward a copy of this policy statement to Governor Sinner, the Garrison Diversion Overview Committee, the Congressional Delegation, the Secretary of the Interior, Assistant Secretary Broadbent, Commissioner Olson, Regional Director Marcotte, and Project Manager Krull.

The Manager shall also take other appropriate actions to implement this policy statement.

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PROPOSAL TO THE GARRISON DIVERSION UNIT COMMISSION REGARDING MUNICIPAL & INDUSTRIAL RECOMMENDATIONS OF THE COMMISSION TO THE SECRETARY OF INTERIOR

Dear Commission:

During the procedings of the Garrison Diversion Unit Commission on Friday, December 14, 1984 in Minot, the Commission decided to include in its recommendations to the Secretary of the Interior the $401 million worth of proposed municipal systems contained in the preliminary final report. The Commission also recommended that the proposed municipal pipeline systems have a minimum repayment requirement of $10 per family per month, except that if operation and maintenance costs would exceed the minimum of $10 per family per month, then the users would pay the entire operation and maintenance costs. In other words, users of the proposed municipal systems included in the Commission recommendations would pay the monthy O & M costs or $10 per month, whichever is greater. Finally, under the Commission's recommendations, the $10 minimum would not apply to municipal water users using water released into the Sheyenne and Red Rivers, specifically West Fargo, Fargo, and Grand Forks.

We are proposing this refinement to your recommendations for several reasons. First, many of the cities in the Commission's recommendations may never see the benefits of the proposed municipal pipeline distribution systems, since most of the proposed municipal systems contained in the preliminary draft report will never be built. Second, the proposed $10 minimum is unfair to those cities not located along the Sheyenne or Red Rivers, since the cities along the Sheyenne and Red Rivers will only be required to operation and maintenance costs, while all other municipal users would be required to pay no less than $10 per month, even if operation and maintenance costs were lower than $10 per month. Finally, the $401 million price tag for the proposed municipal systems contained in the preliminary final report is exorbitant, and increases the cost of the overall Commission's recommedations far beyond what is necessary or realistic.

In order to provide the best opportunity to develop municipal distribution systems in North Dakota and thereby provide actual benefits to cities and the State of North Dakota, we propose that the Commission recommend the following for municipal and industrial water development.

> 1. The State of North Dakota can best determine the configuration of municipal systems based on water quantity or water quality needs, interests, appropriate investigations, and willingness of the water users to accept financial responsibility. Thus, money appropriated by Congress for municipal and industrial water supply projects pursuant to this recommendation shall be provided to the State of North Dakota through the Bureau of Reclamation for development of the projects by the State of

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North Dakota. This will ensure the most efficient and cost-effective application of funds for these projects.

2. The Commission recommends that Congress appropriate, on a project by project basis, up to $200 million for the development of municipal and industrial water supply projects in North Dakota on a statewide basis. These monies shall be disbursed to the State of North Dakota through the Bureau of Reclamation, to be expended for municipal water projects by the State of North Dakota in a manner determined by the State. The $200 million shall be non-reimbursable to the federal government.

3. To ensure that municipal and industrial water supply projects have sufficient need, interest, and willingness to pay on the part of water users, each project for which federal monies are appropriated pursuant to this recommendation shall require a capital cost share by the State of North Dakota of 25%. The 25% state cost share of capital costs shall be allocated to municipal water projects in a manner determined by North Dakota. Increased Pick-Sloan power revenues should not be considered as a source of repayment for capital costs of municipal projects.

4. Operation and maintenance costs shall be the responsibility of state and local entities and water users. There shall be no federal obligation or payment for operation and maintenance costs. Water service contracts shall be the responsibility of North Dakota.

5. The capital costs for the construction of facilities for releases of water into the Sheyenne River and for treatment of such water to meet treaty obligations shall also be non-reimbursable. (Same as Commission decision in Minot.) Costs of works and facilities for such releases shall not be considered to be a part of or included in the $200 million recommended herein for municipal and industrial water development in this recommendation.

6. The State of North Dakota has specifically requested the Southwest Pipeline Project be excluded from the Commission's recommendations.

> The Commission's recommendation does not include the Southwest Pipeline Project. However, if the State determines that financial assistance under this recommendation would not increase costs or result in any delays for the Southwest Pipeline Project, this recommendation would allow financial assistance for even that project upon such determination.

We will be very grateful for your consideration of this proposal. As we have reviewed the decisions of the Commission, we are convinced that these suggestions are consistent with the intent of the Commission. They will clearly help our state make the best use of monies allocated for municipal purposes.

We again want to thank you for your extensive work on this project.

Thank you.

Sincerely,	Sincerely,
Governor Allen I. Olson	Governor-Elect George Sinner

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STANDING ROCK SIOUX TRIBE'S
STATEMENT
ON
GARRISON DIVERSION UNIT COMMISSION
H.R. 1116

Mr. Chairman, distinguished Members of Congress, ladies and Gentlemen:

My name is Allen White Lightning. I am the Chairman of the Health, Education and Welfare Committee of the Standing Rock Sioux Tribal Council and a member of the Tribal Select Committee on Water.

The Standing Rock Reservation is located in the southcentral portion of North Dakota and in the northcentral portion of South Dakota. It encompasses all of Sioux County in North Dakota and all of Corson County in South Dakota. The reservation covers approximately 3,643 square miles or 2.3 million acres. The Tribe has ninety miles of shoreline on the Missouri River and maintains ownership of that shoreline under the Fort Laramie Treaty of 1868. Treaty rights under the 1868 Treaty provides that land cannot be taken without the consent of the people.

The Standing Rock Sioux Tribe originally opposed the Garrison Diversion Project because the states of North Dakota and South Dakota both use the loss of land within their states as justification to receive support for water development in those respective states. Mr. Chairman, most of the land lost in North Dakota and South Dakota has been on Indian reservations. The Standing Rock Sioux Tribe sacrificed 55,994 acres of our richest irrigable bottomlands in the National interest. The Sioux Tribes of South Dakota sacrificed more than 203,000 acres for development under the Pick-Sloan Plan. This is more than any other people sacrificed in the entire United States.

Of course, the Tribe is concerned with being the first Tribe downstream from the Garrison Diversion. The negative effects include the depletion of water by approximately three million acre-feet per year; deletion of deliverables to Standing Rock such as the low-rate pumping power authorized in 1982 to our irrigation project; reduced water flows and further reduction of water in any future phases of Garrison Diversion, which will damage the overall development of the Standing Rock Reservation.

Since the construction of the Oahe Dam and Reservoir, to the detriment of the Standing Rock Sioux Tribe and its valuable rights to the use of water, there has been no greater emphasis upon the needs for development of water resources for the benefit of the Standing Rock Sioux Tribe and its members than now exists.

The Standing Rock Sioux Tribe has initiated the development of a framework for the beneficial use, management and control of Indian water resources. Clearly, the Standing Rock Sioux Tribe has prior and paramount rights to the use of water. However, the exercise of those rights has historically been suppressed as evidenced by the minimal development of irrigation and other uses of water. A continual fracturing of title to land has contributed substantially to this absence of development, but, more recent governmental decisions such as water marketing and national water policy of the federal government, is resulting in new and serious limitations to the actual use of water by the Standing Rock Sioux Tribe.

Development potentials include irrigation from the mainstem Missouri River, hydropower generation on the main stem Missouri

River, irrigation from the regulated and unregulated tributary streams; municipal and rural systems development and management of those systems.

The Department of Interior has the Tribal Water Code under consideration and has had that document since the Fall of 1984. The Department of Interior also has been presented with a proposal for Investigation of Water Resource Development and Utilization Potential in the amount of $500,000. We understand there is no money in the BIA for this proposal.

It is the genuine belief of the Standing Rock Sioux Tribe, that through the development of sound water resources policy by the Standing Rock Sioux Tribe and implementation of projects under our planning, management, and control, the current federal policy can be overcome, and Indian water rights can be put to use for the benefit of the Tribe.

Although there is much that can be said about the Indian water requirements not being addressed by the federal agencies involved in water development, I will address the specifics of the Garrison Diversion Unit Commission recommendations at this time.

Regarding the Environmental Impact Task Force, we recommend that at least one Indian representative of a federally recognized Tribe who has understanding of the cultural values of people serve on this Task Force.

BIA or BOR as Lead Agency; The Bureau of Indian Affairs must assume its rightful role and responsibility regarding Indian tribes and their resources.

Regarding the Fort Yates Irrigation Area of 2,380 acres, the Standing Rock Sioux Tribe requests the study and formula used to address the proposed irrigation and what criteria governs the project. The Standing Rock Sioux Tribe reserves the right to utilize its own technical expertise in the development of this project and the financial management of the proposed funding. The Tribe further considers this project a small complement of major development, which is the 25,850 acres authorized in 1944. Finally, this 2,380 acres is in no way a settlement of the full extent of requirements of the Winters Doctrine water rights. All of the figures do not include the acreage taken by the Oahe Act.

With regard to the question of authorized projects for Indian Tribes under the 1944 Act, we address the following: While the Pick-Sloan Plan does not distinguish between federal and Indian water rights, the plan identified areas of proposed irrigation projects within seven Sioux Indian reservations, including Standing Rock. Electricity produced from Missouri hydropower components of the Pick-Sloan Plan was to be used to enhance the development of the irrigation. However, the hydropower benefits associated with those irrigation projects is also minimal while BOR markets most of the hydropower.

The Standing Rock Sioux Tribe urges the authorization of these projects under the Leavitt Act. The Standing Rock Sioux Tribe reserves the right to know more about the project as authorized under the Leavitt Act, its design and administration costs in addition to any economic feasibility criteria that may be applied. The Standing Rock Sioux Tribe reserves the right to the following:

1) Legal Review
2) Engineering Review
3) Soil and Land Classification Study
4) To administer any and all parts of the Contract by P.L. 93-638.

The Municipal water needs are in excess of $1.8 million as documented by the Indian Health Service. There are eight communities on Standing Rock, five of which are on the South Dakota portion of the reservation. Four communities suffer severe water shortage, obsolete systems and major water crises. You are urged to consider in H.R. 1116 all the needs of the Standing Rock Sioux Tribe as identified in the Garrison Diversion Unit Commission recommendations. Lastly, Mr. Chairman, as a former member of that particular Committee of Congress that reviewed P.L. 85-915, the Oahe Act, you will recall that opposition to this bill had been expressed to our General Counsel by members of those respective communities to be drastically affected. However, you as members of Congress, were not privileged to receive direct testimony of the position to lands condemned in the national interest. We urge this Committee to fully consider our recommendations, to amend H.R. 1116 and include within this bill, our needs.

The Standing Rock Sioux Tribe supports water development. However, the Tribe under the Winters Doctrine, must be included in all plans which utilize or affect the waters of the Missouri River. The economic future of the Standing Rock Sioux Tribe depends on this involvement.

Thank You.

Charles W. Murphy
Chairman
Standing Rock Sioux Tribe
Fort Yates, North Dakota 58538

March 4, 1985

Honorable George Miller, Chairman
Sub-Committee on Water and Power Resources
2228 Rayburn Building
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman:

Enclosed is documentation that was requested regarding the Standing Rock Sioux Tribe's testimony before your Sub-Committee on H.R. 1116 on February 28, 1985.

There are two questions that will be addressed here:

1) The depletion of 3.9 million acre-feet and the deletion of deliverables to the Standing Rock Sioux Tribe.

2) Whether there is a limitation on the amount of water that can be used by the tribes.

Enclosed is a document titled, MISSOURI RIVER BASIN WATER SUPPLY AND WATER REQUIREMENTS OF UNITED SIOUX INDIAN RESERVATIONS Final Report of February 1979, Contract No. MM-1662-01-01-33, p.2-9, Table 2-6, Projected Growth in Annual Depletions Above Sioux City, Iowa. These are the figures we work with in developing our testimony. The source for this specific data is: COE, 12-75, February 1976, p.4. This the Army Corps of Engineers data.

The Bureau of Reclamation has provided the Army Corps of Engineers with data on future depletions of the Missouri River above Garrison based on ultimated development between Fort Peck and Garrison. Those figures utilized by the Army Corps of Engineers in the planning for future regulations of the river contemplated a depletion of 3,949 acre-feet per year in planning completed in 1975. Most of this could be attributed to the Garrison Diversion Unit contemplated at that time.

The planning by the Bureau of Reclamation of which the Garrison Diversion Unit was a part, does not reflect any significant development by the Standing Rock Sioux Tribe or other Indian tribes within the Missouri River Basin, although there are 26 tribes in the Basin. The Bureau of Reclamation planning only contemplated projects such as Garrison, large scale energy development and other non-Indian development.

This depletion of 3.9 million acre-feet not only reduces the amount of water in the downstream Missouri River but also will raise the cost of power. This water depletion means the water supply for hydropower is significantly depleted. The

Standing Rock Sioux Tribe and other tribes in the Missouri River Basin should develop that hydropower to offset the losses suffered by the Standing Rock Sioux Tribe to the development of the reservoirs. Those tribal lands lost being the most valuable from the standpoint of future irrigation.

Indian rights are now going through Federal generators and collection of revenues is by the Federal Government (Bureau of Reclamation). New generators should be established to produce electricity and revenue for the Standing Rock Sioux Tribe. This would reduce the dependency on the Federal Government for on-going costs. There is more water going by the dams than the present generators can take. By constructing new generators, additional electricity could be created. We DO NOT WANT the Bureau of Reclamation nor the Army Corps of Engineers to construct new generators themselves, we want the generators built for the Standing Rock Sioux Tribe and to utilize the revenues. This water running over the dams is not surplus water but is not being used either.

ARE TRIBES LIMITED IN THE AMOUNT OF WATER THAT THEY CAN USE:

Under the 1868 Treaty and the Winters Doctrine the Standing Rock and its members can use sufficient quantities of Missouri River water for irrigation of all practicably irrigable acres of land within the boundaries of the Reservation (1868).

The answer to your question, Mr. Chairman, is yes and no.

If the Standing Rock Sioux Tribe had the financial capability to irrigate 500,000 acres of land under the Winters Doctrine, the Great Sioux Nation under the 1868 Treaty, is the Senior Appropriator, as are other Indian Nations on the Missouri River Basin system, in western water law the Indians would have their needs satisfied despite inequities to existing water users. More specifically, if four acre-feet of water was required to irrigate one-acre of alfalfa under the Winters Doctrine, a tribe would be entitled , at a minimum, to two-million acre-feet of Missouri River water. So, in a sense, we are limited in the amount of water that we can use. Those limitations are based on:

1) The Tribe's social and economic problems;
2) The ability of the Tribe to assemble the data necessary to protect, develop and administer its Winters Doctrine water rights; and
3) The performance of the Trustee United States' trust responsibilities and obligations on behalf of Indian tribes.

In that sense, we are limited. Legally, we would be entitled to enough water to satisfy requirements for all beneficial uses. Our limitations are strictly political and financial.

It must be pointed out that the extent of Standing Rock's social and economic problems stem from water development and it is ironic that water development is the immediate solution to reducing and eventually eliminating those problems. The real problem of the entire situation is that there are many interests within and outside the Missouri River Basin who are making claims for and expecting their water needs to be satisfied by water from the Missouri River. The Tribe does not want nor does it need representation by the Department of Justice and the Department of Interior who are representing and advancing water interests that are adverse to Indian interests. It is a definite conflict of interest.

In closing, Mr. Chairman, I impress upon you that the Missouri River system is the last system in the United States that has not been fully appropriated and considered by the U.S. Department of Interior to have surplus water. There is about 19 million acre-feet as documented by the Interior Department.

There are 26 Indian tribes in the Missouri River Basin who have Winters Doctrine Water Rights. However, the tribes do not have the money to implement and exercise those rights for development.

The Standing Rock Sioux Tribe has submitted comments to Mr. John Fritz, Acting Assistant Secretary for the Bureau of Indian Affairs regarding the Garrison Diversion Unit recommendations regarding the Indian issues. Please find those enclosed also. In addition, we are sending you correspondence submitted to Senator Burdick and Congressman Yates on Appropriations for the BIA on water issues.

On behalf of the Standing Rock Sioux Tribe, we appreciate the historical opportunity of testifying before U.S. Congress for the first time, representing ourselves, on the vital issue of WATER and our rights in regard to it.

We look forward to working with you on all further developments of the Garrison Diversion Unit.

Sincerely,

Charles W. Murphy, Chairman
Standing Rock Sioux Tribe

CWM:pay

ENC.

cc: Silvio Conti, Congressman

Charles W. Murphy
Chairman
Standing Rock Sioux Tribe
Fort Yates, North Dakota 58538

January 9, 1985

Honorable Quentin Burdick
United States Senate
511 Hart Office Building
Washington, D.C. 20510

Dear Senator Burdick:

As you are aware, the Garrison Diversion Unit Study Commission has submitted its Final Report to the Secretary of Interior on the Garrison Diversion Project. In that Final Report, there are some findings and recommendations critical to the Standing Rock Sioux Tribe. Because of a deadline of January 31, 1985, to establish a five-member Commission to hear and study Standing Rock and Fort Berthold 's cases, the Standing Rock Sioux Tribal Council adopted Resolution No. 25-85 on January 4, 1985, making the following recommendations:

- Three members of the Commission be named and endorsed by the Standing Rock Sioux Tribe and that such membership be comprised of knowledgeable, unbiased, professional persons in the areas of culture, environment, Indian and water related issues.
- Commission Office be established at Bismarck, ND, with Indian staff from both the Fort Berthold and Standing Rock Reservations with technical experts to be contracted by both tribes and funding to be derived from the Garrison Diversion appropriations.
- Field hearings on both Fort Berthold and Standing Rock Reservations.
- Standing Rock Select Committee on Water to negotiate with the Secretary of Interior and the Assistant Secretary of Indian Affairs for the establishment of said Commission.
- Interim Report by May 30, 1985 and Final Report by October 1985.

The Standing Rock Sioux Tribe has nominated the following persons to sit on the five-member Commission:

- Philip S. Deloria, Director
  American Indian Law Training Program
  Albuquerque, New Mexico

- Mel Tonasket, Vice Chairman
  Colville Confederated Tribes
  Nespelem, Washington

- Dr. Brent Blackwelder
  Director of Water Projects
  Secretary of Board of Directors
  Environmental Policy Institute
  Washington, D.C.

- Ms. Ann Zorn
  Former Commissioner
  Garrison Diversion Unit Study Commission
  Las Vegas, Nevada

- Mr. Norman "Ike" Livermore
  Former Commissioner
  Garrison Diversion Unit Study Commission
  San Rafael, California

The Standing Rock Sioux Tribe supports all aspects of water development. However, in all past endeavors, tribes have not been allowed to participate in development; even specific development affecting our entire lifestyles. The Tribe, under the Winters Doctrine, must be included in all plans which utilize or affect the waters of the Missouri River. The economic future of the Standing Rock Sioux Tribe depends on this involvement.

The Tribe chooses to be involved in the congressional approach to assure its tribal members that theydo not have to wait another 40 years for benefits promised by the Federal Government and paid for with the flooding of the Tribe's most fertile bottomlands. Although the Tribe is optimistic about seeking congressional support, our people know from past experience what can happen in the committees. Also, it is a reality that the Tribe cannot compete against massive national water projects because of the financial limitations on these massive projects. In the past, this has forced the tribes to settle for minimum compensation. For example, Fort Berthold lost 153,000 acres and received $12½ million as compensation. Standing Rock lost 56,000 acres and received $12½ million, only half of what was originally requested.

Senator Burdick, the Standing Rock Sioux Tribal Council and its tribal members recognize you as a staunch friend and ally for many years. You have been involved in some of our grandparents' struggles. Once again, we call upon you to assist us. We would appreciate your support of the Standing Rock Sioux Tribe's recommendations to the Secretary of Interior and urge this action.

Kind personal regards and wishes for a Happy New Year.

Sincerely,

Elliott Rhoades, for
Charles W. Murphy
Tribal Chairman

CWM:pay

Charles W. Murphy
Chairman
Standing Rock Sioux Tribe
Fort Yates, North Dakota 58538

February 15, 1985

John Fritz, Acting Assistant Secretary
U.S. Department of Interior
Bureau of Indian Affairs
Washington, D.C.

Dear Mr. Fritz:

The following comments are submitted regarding the Garrison Diversion Unit Study Commission Report:

P. 2(6): Environmental Impact Task Force: at least one Indian Representative of a federally recognized Tribe who has understanding and knowledge of the cultural values of Indian People. Regulations and standards must be applied to each and every major water project and its effects in regard to Indians.

P. 2(8) BIA or BOR Lead Agency: The Bureau of Indian Affairs as lead agency must assume its rightful role and responsibility regarding Indian Tribes and their resources. Ultimately, the Standing Rock Sioux Tribe would administer P.L. 93-638 through the Bureau of Indian Affairs. The Standing Rock Sioux Tribe reserves the right to contract for the administration of and and all feasibility studies. This is a minute part of the trust function of the BIA and would not diminish their functions significantly. The Standing Rock Sioux Tribe must be allowed to participate, to reach an agreement, to understand our own resources and utilize them and have some of the money spent on investigations for the Tribe. We must have first-hand information and we must be allowed our right to self-government.

Recommendation No. 90: The Standing Rock Sioux Tribe has sought irrigation projects from the Department of Interior for many years. The first irrigation system on Standing Rock was fully operated by the Bureau of Indian Affairs. The second project of 822 acres is operated by the Tribal Farms and is anticipating going into the Second Phase. This project is a Corporate Venture and is independent of the Tribal Council.

There have been more than 1,000 feasibility studies done in the Missouri River Basin for various reasons. The Tribe questions which study addresses the 2,380 acres in the Fort Yates area, what formula was used to arrive at these figures and what criteria governs this project. The Tribe considers this project a small complement of major development, which is the 25,850 acres authorized in 1944. (Approximately 303,000 acres have been identified as irrigable on S.R.). Finally, this 2,380 acres is in no way a settlement of the full extent of requirements of the Winters Doctrine Water Rights. All of the above figures did not include the acreage taken or lost to the Oahe.

Office Phone 854-7231

The Standing Rock Sioux Tribe requests the formula used to address the 2,380 acres proposed for irrigation and what criteria governs the project. The Standing Rock Sioux Tribe reserves the right to utilize its own technical expertise in the development of this project and the financial management of the proposed $11 million.

Recommendation No. 92: Congress passed the 1944 Flood Control Act which authorized the Pick-Sloan Plan. That Plan for development of the Missouri River Basin included the irrigation of more than 100,000 acres of land on the reservations of the Sioux Tribes of North and South Dakota, including Standing Rock for 25,850 acres. Electricity produced from Missouri hydropower components of the Pick-Sloan Plan was to be used to enhance the development of the irrigation. It was upon this basis that the BIA endorsed the Pick-Sloan Plan, and these were the components of the plan considered by Congress in passing the 1944 Flood Control Act. Only small acreages of irrigation of the Sioux People as prposed by the Bureau of Reclamation in its original Pick-Sloan Plan has ever been developed, and the hydropower benefits associated with those irrigation projects is also minimal while BOR markets most of the hydropower.

Congress also passed the Leavitt Act in 1932. This Act suspends consumption costs and is a good act for the benefit of Indian tribes. The Leavitt Act has been used repeatedly for administration costs to destroy Indian projects. Indian tribes cannot be subjected to economic feasibility criteria for irrigation. Tribes must develop those according to the productivity of the land.

The Standing Rock Sioux Tribe urges the Secretary of Interior to pursue the authorization as outlined above.

The Standing Rock Sioux Tribe reserves the right to know more about the proposed irrigation project as authorized under the Leavitt Act, its design and administration costs in addition to any economic feasibility criteria that may be applied. The Standing Rock Sioux Tribe reserves the right to the following:

1) Legal Review
2) Engineering Review
3) Soil and Land Classification Study
4) To administer any and all parts of the contract by P.L. 93-638.

Recommendation No. 93: Municipal water needs are in excess of $1.8 million as documented by the Indian Health Service. These needs must be developed in accordance with Tribal law and codes. These needs, because they are DIRE needs, should address the South Dakota portion of the Standing Rock Reservation along with all other needs.

Recommendation No. 94: The Standing Rock Sioux Tribe has several complaints against the U.S. Army Corps of Engineers in regard to recreation, cemetaries, use of the taken area and in lease agreements with the Tribe and its entities.

The five-member Commission should address and/or mediate between the Tribe and the Army Corps of Engineers in resolving the problems created by the construction of the Oahe Dam.

Recommendation No. 96: The Secretary of Interior and the Assistant Secretary for the BIA are urged that congressional oversight hearings on Indian water rights be implemented.

Recommendation No. 97: Per Declaration of February 11, 1985. (Attached)

Recommendation Nos. 98-99: There are treaty commitments and pertinent congressional acts that have been ignored. There are some issues that the Standing Rock Sioux Tribe feels are unconstitutional in regard to the Oahe settlement. Some actions by the Army Corps of Engineers and the BOR did not fall under the authorization of the Oahe Act. Commitments made by the Army were unfulfilled.

Although Secion 207(c)(2)(H) of P.L. 98-360 refers to institutional and tax equity issues related to the authorized project and alternative water development proposals only, ALL projects in the Missouri River Basin required justification. That justification to Congress for authorized projectss ALWAYS included PROMISES to build Indian projects.

You are urged to uphold the treaty commitments and agreements, congressional acts passed in accordance with the Oahe Act and the 1868 Treaty.

Mr. Fritz, we appreciate your past support and urge your continued support for the endeavors of the Standing Rock Sioux Tribe.

Sincerely,

Charles W. Murphy
Chairman

CWM:AWL:pay

ATTACH.

PROPOSED CHARTER
OF THE JOINT TRIBAL COMMISSION
CREATED BY PUBLIC LAW 98-360

1. Official Designation

   Joint Tribal Commission to Examine the Impacts of Pick-Sloan Program.

2. Purpose, Objectives, Scope of Activities

   This Commission, created under the authority of Public Law 98-360, is directed to examine, review, evaluate, and make recommendations regarding the entitlement of the Standing Rock Sioux Tribe, the Three Affiliated Tribes, and the Devils Lake Sioux Tribe to compensation, including a monetary award or such other compensation as the Commission deems appropriate for the injuries due to the operation of the Pick-Sloan Program in North Dakota.

3. Official to Whom Commission Reports

   Secretary of the Interior.

4. Agency Responsible for Providing Support

   Bureau of Indian Affairs, Department of the Interior.

5. Estimated Operating Costs

   $500,000.

6. Estimated Frequency of Meetings

   The Commission will hold five (5) public hearings as follows: Two (2) hearings on the Standing Rock Sioux Reservation; two (2) hearings on the Fort Berthold Reservation; and one (1) hearing on the Devils Lake Sioux Reservation, and such other and further hearings as may be determined necessary by the Commission.

7. Termination Date

   This Commission shall terminate on October 1, 1985.

8. Commission Membership

   This Commission shall have five (5) members, one of whom will be designated by the Secretary as Chairman. The Tribes shall have authority to nominate three (3) members. The Secretary shall nominate the remaining members by March 1, 1985. The Chairman of the Commission will set the dates of the hearings of the Commission.

9. Authority of the Commission

This Commission was created under the authority of Public Law 98-360.

10. Powers of the Commission

This Commission, as a Secretarial commission created under the authority of Public Law 98-360, shall have the power to hold hearings, take testimony, and examine evidence as it relates to the entitlement of the Standing Rock Sioux Tribe, the Three Affiliated Tribes, and the Devils Lake Sioux Tribe to compensation for injuries arising from the implementation of the Pick-Sloan Program in North Dakota. The Commission shall have the authority, through contract, to hire staff and personnel as necessary to carry out this responsibility. It should deliver its final report to Congress and to the Secretary of the Interior no later than August 31, 1985, regarding its recommendations for compensation to the Tribes.

DECLARATION OF PRINCIPLES
TO GUIDE THE JOINT TRIBAL COMMISSION (JTC)
CREATED BY PUBLIC LAW 98-360

The Three Affiliated Tribes of the Fort Berthold Reservation, under the Treaty of Fort Laramie of 1851 and subsequent treaties and agreements with the United States;

The Standing Rock Sioux Tribe of the Standing Rock Reservation, under the Fort Laramie Treaty of 1868 and other treaties and agreements with the United States; and

The Devils Lake Sioux Tribe of the Devils Lake Sioux Reservation, under the Treaty of 1863 and subsequent treaties and agreements with the United States,

Hereby agree that the following principles shall guide the five-member Joint Tribal Commission, created under Public Law 98-360, as follows:

(1) That a federal promise was made to protect the treaty and statutory rights of the signatory Tribes from abrogation or diminishment by the Pick-Sloan Program in North Dakota. Therefore, the five-member Indian Commission created by Public Law 98-360 shall observe these following principles in the conduct of their investigations.

(2) That the reserved water rights of the Tribes are superior to any water right arising out of the Garrison Diversion Unit Project.

(3) That the treaty reserved rights of the Tribes were not abrogated or diminished by the Flood control Act of 1944 or by any amendments thereto.

(4) That any compensation, or any other award, made to the Tribes by this Commission because of the operation of the Pick-Sloan Program shall not be construed in derogation of the Tribes' reserved treaty rights, including reserved water rights.

(5) That any irrigation projects awarded by this Commission shall not be construed as limiting the Tribes' additional irrigable acreage in any way.

(6) That this Commission is directed to consider the entire Standing Rock Reservation that was impacted by the Pick-Sloan Program.

(7) That the funding of this Commission shall not be construed as affecting the rights of any of the Tribes to contract for such work as

they may be entitled to contract for under the Indian Self-Determination Act, Public Law 93-638.

FOR THE THREE AFFILIATED TRIBES

Alyce Spotted Bear
Chairwoman
Tribal Business Council

FOR THE STANDING ROCK SIOUX TRIBE

Allen White Lightning

Phillip Eagle

AlJoe Agard

FOR THE DEVILS LAKE SIOUX TRIBE

Elmer White, Sr.
Tribal Chairman

Charles W. Murphy
Chairman
Standing Rock Sioux Tribe
Fort Yates, North Dakota 58538

February 13, 1985

Honorable Sidney Yates, Chairman
Interior Appropriations Sub-Committee
B-308 Rayburn Building
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman:

The Indian Tribal Water Rights Coalition was established primarily to protect, preserve, utilize and conserve the reserved rights of the members of that Coalition. The Standing Rock Sioux Tribe is a member of the ITWRC.

In the fall of 1984, the Tribal Water Rights Coalition membership tribes met with Mr. Steven Katz of your personal staff. At that time, he was presented with documents regarding monies ($30 million) for litigation/negotiation purposes. Also at that time, he was given the position papers of the Standing Rock Sioux Tribe. We are assuming that your office has these documents in your possession. On that basis, we are forwarding additional information that may be helpful.

The concern of this correspondence is the legal implementation of Principles and Guidelines contrary to the Trust Function of the Secretary of Interior. The Bureau of Reclamation has actually trespassed upon numerous Indian reservations in the Missouri River Basin as well as in all the river basins in this country.

Specifically, the Standing Rock Sioux Tribe is concerned about the marketing of water by the Bureau of Reclamation at a pace much faster than there is available for industrial purposes by the Memorandum of Understanding (MOU). The MOU, between the Department of Interior, the Army Corps of Engineers and the Department of Energy (1977) allows the use of one million acre-feet of water in the Missouri River for industrial purposes per annum until the year 2025 AD. During discussions with the BOR regarding the Garrison Diversion (three million acre-feet) Unit in North Dakota, the Tribal members were informed by the BOR Regional Director, Mr. Robert Madsen, that the MOU was no longer in effect. If, in fact, that is true, why is the marketing by BOR continuing, in the following:

a) The BOR is proposing to market water from the Yellow Tail Reservoir which will have an adverse impact on the Crow and downstream tribes including Standing Rock. If BOR begins to make this water available for coal slurry pipelines, then it is less water in the Yellowstone River and ultimately, the Missouri River.

b) With BOR as lead agency in the Department of Interior for the marketing of water on the mainstem dams, they have entered into an agreement with the State of Montana for 300,000 acre-feet from the Fort Peck Reservoir;

c) On the Oahe, (Standing Rock and Cheyenne River Reservations), the BOR has proposed water marketing with the State of South Dakota for 300,000 acre-feet. The Standing Rock Sioux Tribe still maintains the ownership of the bed of the Missouri, which is Lake Oahe and the Oahe Reservoir.

With regard to other issues, Congress passed the 1944 Flood Control Act which authorized the Pick-Sloan Plan. That plan for development of the Missouri River Basin included the irrigation of more than 100,000 acres of land on the reservations of the United Sioux Tribes of South Dakota:

Standing Rock	25,850 acres
Cheyenne River	25,663 acres
Lower Brule	15,190 acres
Crow Creek	19,930 acres
Pine Ridge-Rosebud	21,000 acres
Yankton	4,340 acres

Electricity produced from Missouri hydropower components of the Pick-Sloan Plan was to be used to enhance the development of the irrigation. It was upon this basis that the Bureau of Indian Affairs endorsed the Pick-Sloan Plan, and these were the components of the plan considered by Congress in passing the 1944 Flood Control Act. Bear in mind also, that the Sioux Tribes of North Dakota and South Dakota sacrificed 202,000 acres of their most fertile bottomlands to the Pick-Sloan Plan.

In the 41 years since the Act was passed, the Bureau of Reclamation developed Shadehill Reservoir in the Grand River (above Standing Rock) not for the benefit of the Standing Rock Sioux Tribe, which is the owner and superior owner of the water rights of the Grand River, but for the non-Indian water users on the Grand River. They built the Angostura Project which monopolizes for non-Indians the water supply of the Cheyenne River (above Cheyenne River Reservation).

The Standing Rock Sioux Tribe has developed 822 acres todate and is breaking even financially. The low-rate pumping power was only authorized in 1982 and began in 1984.

The Federal agencies involved in the Pick-Sloan Program have never acknowledged the legal provisions of the Winters Doctrine. The BOR's manipulation of Principles and Standards and the "Procedures for Evaluating Impacts of Federal Water Projects Upon Indian Reservations" can seriously damage future Indian economic development and the Tribes' Winters Doctrine Water Rights. The Standing Rock Sioux Tribe rejects these criteria as a basis for determining economic feasibility, practicably irrigable lands or Winters Doctrine water rights in the Missouri River Basin.

It is the urgent desire of the Standing Rock Sioux Tribe to implement its own studies in order not to be subjected to substantially damaging, erroneous and fraudulent findings, which may become evidence against the Tribe in any future litigation.

Tribal Water Code

In February of 1983, the Standing Rock Sioux Tribal Council adopted, in principle, a Tribal Water Code to establish a mechanism under which all waters of the Standing Rock Sioux Reservation, including groundwater, would be uniformly administered by the Standing Rock Sioux Tribe for the benefit of all Indians and non-Indians residing within the boundaries of the Standing Rock Reservation.

Efforts to adopt and implement a comprehensive water management system for the Reservation began in December 1978. Using the Colville Confederated Tribes' Water Code as a model, the Standing Rock Sioux Tribe's legal counsel was directed to draft a water code for the Tribal Council's review and consideration.

However, the Tribal Attorney recommended to the Tribal Council that until the Colville vs. Walton case was adjudicated and certain questions resolved, no action be taken to adopt and implement the draft water code.

The factual and legal background to this 14 year old dispute is thoroughly reviewed in Colville Confederated Tribes vs. Walton, 460 P. Supp. 1320 (F.D. Wash.1978) (Walton I) and Collville Confederated Tribes vs. Walton, 647 F.2d 42 (9th Cir.), cert. denied, 454 U.S. 1092 (1981) (Walton II). "...In Walton II, the Ninth Circuit Court of Appeals held that the United States reserved sufficient water, when the Colville Reservation was created, to allow the irrigation of all practicably irrigable acreage on the reservation. 647 F.2d 48. They also held that a ratable share of this water reserved for irrigation passed to Indian allottees. This ratable share could in turn be conveyed to a non-Indian purchaser. However, the non-Indian purchaser's share is subject to loss if not put to use..."

Water, as every recognizes, especially, in the arid and semi-arid western United States, is a finite and valuable resource. If the Standing Rock Sioux Tribe and its members are to achieve economic self-sufficiency, then a system to manage water properly for present and future users must be implemented. The Solicitor for the Department of Interior presently has the Standing Rock Sioux Tribe's Water Code under review in spite of the Department of Interior's MORATORIUM on Tribal Water Codes.

We recognize that having valuable rights in one thing. Managing them properly is the other important thing. With the present competition for water and the over-appropriation of the Missouri River, the Standing Rock Sioux Tribe must be diligent in its efforts to prevent our water from being polluted. More importantly, the Tribe must be allowed to participate in a current program rather than addressing Congress twenty years from now to correct wrongs being perpetrated today.

The Standing Rock Sioux Tribe reserves its right to the use of water before committing any more of the Missouri River water for industrial purposes.

Please reserve five minutes for the testimony of the Standing Rock Sioux Tribe at the proposed hearings scheduled for April 1985.

Mr. Chairman, the Standing Rock Sioux Tribe appreciates your interest in this very vital issue of Indian water rights.

Sincerely,

for

Charles W. Murphy
Chairman

RESOLUTION   No. 499-82

WHEREAS, the Standing Rock Sioux Tribe is an unincorporated Tribe of Indians, having accepted the Indian Reorganization Act of June 18, 1934, with the exception of Article 16, and the recognized governing body of the Tribe known as the Standing RockSioux Tribal Council, and

WHEREAS, the Standing Rock Sioux Tribal Council, pursuant to the Constitution of the Standing Rock Sioux Tribe, Article IV, Section 1(a) and 1(c) is empowered to negotiate with Federal, State and local agencies in matters which effect the health, education and and general welfare of the members of the Tribe, is empowered to manage, protect and preserve the property of the Tribe and the wildlife and natural resources of the Standing Rock Sioux Reservation, and

WHEREAS, the Standing Rock Sioux Tribe hold superior, prior and paramount rights to the use of the Missouri River as upheld by the principles of law giving rise to the Winters Doctrine; and

WHEREAS, the Secretary of Interior has begun NEGOTIATIONS processes in spite of the Winters Doctrine, thereby robbing the Tribe of our water rights, acting in concert with the Attorney General of the United States; and

WHEREAS, the physical violations of the Indians' Winters rights is but one aspect of the systematic violation of these rights by the Secretary of Interior and the Attorney General; and

WHEREAS, the Attorney General of the United States and his subordinates have in the past and are now forcing their unwanted, rejected and high questionable representation in water rights litigation upon the Standing Rock Sioux Tribe: and

WHEREAS, in clear violation of the code of professional ethics and ordinary standards of professional conduct, the Attorney General and the lawyers functioning under his direction and the Secretary of the Interior and the attorneys in the Office of the Solicitor have consistently, intentionally and immorally sought greatly to constrict the principles of the Winters Doctrine and drastically to limit the application of these principles both in making administrative decisions and before the courts with the consequences that in recent years the concepts originally embraced in the Winters Doctrine have been greatly modified and denigrated to the irreparable damage of the Western Tribes and for the great advantage of the non-Indian projects and uses , all of which immoral conduct by the Attorney General and the Secretary of the Interior stems from the irreconcilable conflicts of interest which arise from the attempted non-Indian projects, purposes and constitutencies simultaneously represented by the Secretary of Interior; and

WHEREAS, specifically, the Attorney General and Secretary of the Interior have undertaken to denigrate, subvert and otherwise drastically modify the Winters Doctrine in the following manner:

1. Have represented that Indian reserved rights under the Winters Doctrine and federal reserved rights are identical and one and the same;

2. Have intentionally misconstrued the term "practically irregable" as utilized in the Supreme Court decision of Arizona v. California as a basis for constricting Indian water rights by applying to them an economic feasibility criterion which of necessity cannot

appropriately be applied to the Indians rights to the use of water for the reason among others that the Secretary of Interior has frequently seized Indian rights for the benefit for non-Indian projects and purposes with the result that the amount of water available to the Indians is vastly reduced and renders inapplicable the criterion utilized in formulating a determination of economic feasibility;

3. The Secretary of the Interior and the Attorney General have intentionally adopted the principles that the Indian rights are to be measured and exercised predicated upon an intent to reserve rights to the use of water as of the date reservations were created thus constricting not only the amounts of water to which the Tribes are legally entitled but likewise the purposes for which those rights may be exercised;

4. The Attorney General and the Secretary of Interior are now espousing principles that would limit Indian rights to quantities sufficient to meet the requirements for a reasonable livelihood.

NOW THEREFORE BE IT RESOLVED, that the Standing Rock Sioux Tribe strenuously protests having forced upon its Tribal membership the unwanted, rejected and highly questionable representation by Attorneys in both the Department of Justice and the Department of Interior.

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe strenuously objects to opinions being rendered by both the Attorney General and his staff and the solicitors office of the Department of the Interior and his staff with the resultant constriction of the principles of the Winters Doctrine that have already been gravely constricted by the immoral and unprofessional conduct of the attorneys in the Interior and Justice Departments whose conduct is rendered odious by the conflicts of interest in which they are immersed.

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe vigorously protests any further representation of that membership by the attorneys of either of the Department of Justice or the Department of Interior by requesting a hearing before the Senate Judiciary Committee of the U.S. Congress and by filing for Injunctive Relief through the Standing Rock Sioux Tribal Court and/or the Court in Washington, D.C.

BE IT FURTHER RESOLVED, that the Chairman and Secretary of the Tribal Council be authorized and instructed to sign this resolution for and on behalf of the Standing Rock Sioux Tribe.

CERTIFICATION

We, the undersigned, Chairman and Secretary of the Tribal Council of the Standing Rock Sioux Tribe, hereby certify that the Tribal Council is composed of 15 members, of whom 13, constituting a quorum, were present at the meeting thereof, duly and regularly called, noticed, convened and held on the 21st day of December, 1982, that the foregoing resolution was duly adopted by the affirmative vote of 9 members, with 0 opposing, and with 4, not voting. The Chairman's vote is not required except in case of a tie.

Dated this 27th Day of December, 1982.

Pat McLaughlin, Chairman
Standing Rock Sioux Tribal Council

ATTEST:

Elaine Brave Bull

Elaine Brave Bull, Secretary
Standing Rock Sioux Tribal Council

(OFFICIAL SEAL)

EREAS, the Standing Rock Sioux Tribe is an unincorporated Tribe of Indians, having
cepted the Indian Reorganization Act of June 18, 1934, with the exception of
ticle 16, and the recognized governing body of the Tribe is known as the Standing
ck Sioux Tribal Council; and

EREAS, the Standing Rock Sioux Tribal Council, pursuant to the Constitution of
Standing Rock Sioux Tribe, Article IV, Section 1(a) and 1(c) is empowered to
gotiate with Federal, State and local agencies in matters which affect the
alth, education and general welfare of the members of the Tribe, and to manage,
otect and preserve the property, wildlife and natural resources of the Standing
ck Sioux Reservation; and

EREAS, the Standing Rock Sioux Tribe has the inherent sovereign power of self-
vernment which includes the authority and obligations to protect, preserve and
nage their invaluable rights to the use of water, and those rights assure the
ibe of an adequate water supply to meet their present and future requirements; and

EREAS, the U. S. Courts, the U. S. Congress and the Executive Branch of the
vernment have historically recognized the reserved water rights of the Tribes and
e Standing Rock Sioux Tribe, acting with the Trustee United States, have
clusive and plenary power over the Tribe's rights; and

EREAS, the Standing Rock Sioux Tribe rejects the concepts advanced by the States
d promoted by the Secretary of the Interior Watt, that States have jurisdiction
er tribes, tribal porperty and water rights, and that immunity from State
risdiction stems from the Tribe's inherent powers of self-government and is
ttressed by the Constitution of the United States, the Enabling Acts pursuant.
which the States entered the Union, and numerous Federal and State Court
cisions; and

EREAS, water right negotiations as sponsored by the Secretary of the Interior
d the Attorney General of the United States have as their objective the abrogation
the principles of the Winters Doctrine and the general denigration of Indian
ter rights.

THEREFORE BE IT RESOLVED, that the Standing Rock Sioux Tribe, in exercising its
wers of sovereignty and self-government, hold public meetings in the communities
water issues and utilize the media for information and education purposes on
ter rights for direction;

IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe, in keeping with the
licy Declaration of the Indian Water Rights Coalition, it is the Tribe's inherent
wer to manage these rights to the use of water, and it's manifest beyond question
at the States do not have jurisdiciton over the sovereign powers of Tribes to
nage, control and administer their water resources.

IT FURTHER RESOLVED, that historically and legally, the Standing Rock Sioux Tribe
ting with the Trustee United States have exclusive and plenary power over the
ibe's rights and that immunity from State jurisdiction stems from the Standing Rock
ibe's inherent powers of self-government and is buttressed by the Constitution of
e United States, the Enabling Acts pursuant to which the States entered the
ion, and numerous federal and state court decisions.

NO. 97 -83

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe opposes negotiations as it results in increased state efforts to limit the Tribe's rights for the benefit of non-Indian projects and water users who are primary beneficiaries of the negotiations, and limits and diminishes the reserved rights of the Tribe by imposing limitations upon those rights by attempting to apply principles of "economic feasibility" which are toally inapplicable and are being used to terminate the Tribe's ancient meland fully recognized by the United States of America pursuant to the Treaty of pril 29, 1868, at Fort Laramie.

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe vigorously opposes any legal action taken by the personnel of the Department of Justice and Solicitor's Office of the Department of the Interior purporting to take legal action involving the Tribe's right to the use of water.

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe demands that the Secretary of the Interior take appropriate action to establish within the Department of the Interior an INDIAN WATER RIGHTS PROJECT to construct, operate and maintain water projects pursuant to contractual arrangements with the Tribe and to request from the Congress of the United States an initial appropriation of immediate funding of not less than $100 million to enable tribes to exercise, utilize, conserve, preserve and protect their Winters rights to the use of water.

BE IT FURTHER RESOLVED, that the Standing Rock Sioux Tribe hereby establish in its budget appropriate amounts of funding to contract with firms to assist in developing legislation to carry out the intention of this resolution.

BE IT FURTHER RESOLVED, that the Chairman and Secretary be authorized and instructed to sign this resolution for and on behalf of the Standing Rock Sioux Tribe.

CERTIFICATION

We, the undersigned, Chairman and Secretary of the Tribal Council of the Standing Rock Sioux Tribe, hereby certify that the Tribal Council is composed of 15 members, of whom 14 , constituting a quorum, were present at the meeting thereof, duly and regularly called, noticed, convened and held on the 3rd day of February 1983, that the foregoing resolution was duly adopted by the affirmative vote of 11 members, with 0 opposing, and with 3 not voting. The Chairman's vote is not required except in case of a tie.

Dated this 3rd day of February 1983.

Pat McLaughlin, Chairman
Standing Rock Sioux Tribal Council

ATTEST:

Elaine Brave Bull
Elaine Brave Bull, Secretary
Standing Rock Sioux Tribal Council

(OFFICIAL SEAL)

TABLE 3-40

GENERALIZED OVERVIEW OF SOCIAL/ECONOMIC IMPLICATIONS OF PROPOSED ACTION ON INDIAN SOCIETY

Socioeconomic Areas	Effect of Coal Development	Probable Impact On Indian Society
1. Tribal social/cultural issues - Cultural values - Sense of community - Special relationship with land - Isolation - Standard of living - Self-development - Self-determination	• Loss of some tribal cultural values • Decreased sense-of-community • Probable loss of special relationship w/land • Contribute to bringing Indian in mainstream of American life • Improved standard of living • Improved opportunity for self-development • Improved opportunity for self-determination	• Disruptive and stabilizing influence on community social structure • Disappearance or loss of tribal cultural heritage/values (cultural degradation) • Improved opportunities of individual growth and development • Closer relationship with American society • Community identity will be severely tested
2. Human resources - Aspirations - Health - Welfare - Education - Vocational training	• Creation of environment of rising expectations • Increased opportunity for improving health services • Opportunity for decreasing dependence on welfare services • Increased education opportunities • Increased opportunity for industrial/occupational training	• Shift from an agricultural to mining/light industry/trade service economy, while tending to improve overall welfare of the individual, will create a requirement for a better educated and occupationally trained individual
3. Physical resources - Land - Minerals - Soils - Water - Timber - Environment - Air	• Change in land use patterns • Increased mineral extraction activity • Increased requirement for soil reclamation • Increased potential for damage to agricultural/domestic water supplies • Probable loss of some timber land • Increased potential for damage to the environment • Decrease air quality on reservation	• Land use activity will begin to shift from agricultural to mineral extractive use • Reduction in the quality of environment with its attendant negative impact on society
4. Economic factors - Employment (labor market) - Income - Agricultural - Trade - Industry - Mining - Economic development	• Increased employment opportunities • Increased individual and tribal income • Probable removal/loss of some agricultural land • Improved trade environment • Increased light industrial activity • Increased mining activity • Improved opportunity for economic growth	• Improved standard of living and individual comfort • Increased individual/tribal economic/financial bases • Increased industrial/trade activity at expense of agriculture
5. Tribal infrastructure - Transportation/communications - Public works/services - Electric power - Housing - Sanitation - Water supply	• Improved communications facilities • Increased demand for more public works/services • Increased demand for electric power • Improved housing facilities • Improved general health environment	• Increased personal mobility • Improved tribal services • Improved general tribal welfare • Accelerate shift from rural to urban environment

SOURCE: WATER FOR ENERGY, Missouri River Reservoirs, Final Environmental Impact Statement, US Department of the Interior, Bureau of Reclamation, 1977.

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MISSOURI RIVER BASIN WATER SUPPLY
AND WATER REQUIREMENTS OF
UNITED SIOUX INDIAN RESERVATIONS

(Final)

February 1979

United Sioux Indian Tribes
Pierre, South Dakota

Technical Assistance
Morrison-Maierle, Inc.
Helena, Montana

MM-1662-01-01-33

1. INTRODUCTION

1.1 ORGANIZATION OF REPORT

The report was prepared for the United Sioux Tribes of South Dakota pursuant to contract No. MM-1662-01-33. General requirements of the contract were to provide information relating to the water supply of the Missouri River Basin, the extent of existing depletions, and the extent of future depletions as proposed by upstream water users. A comparison of water availability accounting for proposed depletions and the present water requirements of the United Sioux Tribes was to be presented.

In this chapter of the report a brief history of land ownership of the United Sioux Tribes is presented. Particular emphasis was placed on identification of the treaties, congressional acts, and executive orders that created the reservations and the cessation of lands within the reservations that followed. Aside from investigation of the division of allotted lands into Indian and non-Indian ownership, it was intended that the summary of documents affecting land title would assist the United Sioux Tribes in quickly tracing the history of land ownership. The chapter concludes with statistics summarizing land status within each reservation. Statistics of population and employment are also provided.

The remaining four chapters of the report center on water availability of the Missouri River under existing and proposed future levels of development, water requirements of the United Sioux Tribes for irrigation and other purposes, and the plan (Pick-Sloan) developed by the federal government for development of the Missouri River Basin.

It was intended that the report will initiate the development of a framework for the beneficial use, management, and control of Indian water resources. Clearly, the Tribes have prior and paramount rights to the use of water. However, the exercise of those rights has historically been suppressed as evidenced by the minimal development of irrigation and other uses of water. A continual fracturing of the title to land has contributed substantially to this absence of development historically, but more recent governmental decisions such as water marketing and water policy of the executive branch of the federal government, if implemented, will result in new and serious limitations to the actual use of water by the Tribes.

Through the development of sound water resources policy by the Tribes and implementation of projects under their planning, management, and control, the current federal water policy can be overcome, and Indian water rights can be put to use for the benefit of the Tribes.

1.2 HISTORY OF REDUCTION IN INDIAN LAND HOLDINGS WITHIN RESERVATION BOUNDARIES.

Table 1-1 summarizes the treaties, congressional acts and executive orders establishing the United Sioux Indian Reservations. Also included are the federal actions which resulted in the sale of surplus and unallotted lands within the United Sioux Indian Reservations, lands which were ceded to the United States by the Tribes. The summary of Table 1-1 includes the principal laws related to Indian ownership within the reservations. Additional executive orders and congressional acts account for changes in title for relatively small areas.

Table 1-2 summarizes acreage of land within each reservation according to 1972 statistics gathered by the U.S. Department of Commerce. The acreage in allotted land, as presented in Table 1-2, is in both Indian and non-Indian ownership. The distribution of ownership into Indian allotted and non-Indian allotted was not investigated further. The "total" acreage for each reservation reflects the cessation of land within the reservation boundaries as summarized in Table 1-1.

1.3 INDIAN POPULATION AND EMPLOYMENT STATISTICS

Population and employment statistics are summarized in Table 1-3 for the United Sioux Reservations. Water resources development within the reservations by the tribes would provide sound employment and income opportunities that have not existed previously.

TABLE 1-1

UNITED SIOUX INDIAN RESERVATIONS
PRINCIPAL CHANGES IN LAND OWNERSHIP
SINCE ESTABLISHMENT OF RESERVATION

RESERVATION	DATE	CONGRESSIONAL ACT, TREATY, OR EXECUTIVE ORDER	SUBJECT	REFERENCE TO KAPPLER	
				VOLUME	PAGE
Standing Rock	March 2, 1889	Treaty	Reservation established.	1	328
	May 29, 1908	Congressional Act	Sale of portion of surplus and unallotted land.		
	February 14, 1913	Congressional Act	Sale of surplus and unallotted land.		675
Lower Brule	March 2, 1889	Treaty	Reservation established.	1	328
	March 3, 1889	Congressional Act	120,000 acres ceded.	1	688
	February 13, 1901	Congressional Act	Open ceded lands to settlement.	1	714
	April 21, 1906	Congressional Act	Sale of reservation portion.	3	167
	September 24, 191	Executive Order	Auction of undisposed lands pursuant to Act of April 21, 1906.	4	1194
Fort Totten	February 19, 1887	Treaty	Establishment of reservation.		
	April 27, 1904	Congressional Act	Lands ceded within reservation.	3	83
	April 26, 1916	Executive Order	Sale of undisposed land.	5	965
Flandreau	June 18, 1934	Congressional Act	Authority to purchase lands for Indian reservations.		
	August 13, 1936	Secretarial Order	Purchase lands to establish reservation.		
	December 12, 1972	Secretarial Order	Add to reservation.		
Rosebud	March 2, 1889	Treaty	Reservation established.	1	328
	April 23, 1904	Congressional Act	Ceded unallotted lands.		
	March 2, 1907	Congressional Act	Sale of portion of surplus or unallotted lands.	3	307
	March 30, 1910	Congressional Act	Sale of portion of surplus and unallotted lands.	-	459
Santee	March 2, 1889	Congressional Act	Reservation established.	1	328
Crow Creek	March 2, 1889	Congressional Act	Reservation established.	1	328
Pine Ridge	March 2, 1889	Treaty	Reservation established.	1	328
	May 13, 1910	Congressional Act	Sale of surplus and unallotted land in Bennett County.	3	455
Cheyenne River	March 2, 1889	Treaty	Reservation established.	1	328
	May 29, 1908	Congressional Act	Sale of portion of surplus and unallotted lands.		
Sisseton	February 19, 1867	Treaty	Reservation established.		
	1891	Congressional Act	Cede unallotted lands.	1	428
Yankton	April 19, 1858	Treaty	Reservation established.	2	776
	May 20, 1875	Executive Order	Reservation added to.		898
	December 31, 1892	Congressional Act	Ceded unallotted lands in area of 1858 Treaty.		
	February 13, 1929	Congressional Act	Reinvest title in Indians to about 1000 acres.	5	77

TABLE 1-2

LAND STATUS
UNITED SIOUX INDIAN RESERVATIONS.

RESERVATION	TOTAL	TRIBAL	ALLOTTED	GOVERNMENT	PAGE(1)
Standing Rock	847,799	294,840	542,700	10,258	433
Lower Brule	119,944	74,863	31,872	13,209	496
Fort Totten	244,507(2)	473	47,640	1,800	430
Flandreau	2,356	2,180	-	176	494
Rosebud	978,230	409,321	540,112	28,797	500
Santee	5,791	3,599	2,192	-	291
Crow Creek	122,531	31,111	72,339	19,079	492
Pine Ridge	2,778,710(3)	372,243	1,089,077	48,231	498
Cheyenne River	1,419,504	911,467	503,483	4,554	489
Sisseton	106,210	876	105,171	161	502
Yankton	434,932(4)	5,560	29,372	-	505
TOTAL	7,050,514	2,106,533	2,963,958	126,265	

(1) (U.S. Department of Commerce, 1974)

(2) Non-Indian = 192,794
F & W 1,800

(3) Non-Indian = 1,269,159

(4) Non-Indian = 400,000

TABLE 1-3

1972 POPULATION AND EMPLOYMENT STATISTICS
UNITED SIOUX INDIAN RESERVATIONS

RESERVATION	1972 POPULATION	LABOR FORCE		UNEMPLOYMENT RATE
		TOTAL	UNEMPLOYED	
Standing Rock	4,690	1,159	399	34%
Lower Brule	701	152	35	23%
Fort Totten	1,990	462	273	59%
Flandreau	267	87	8	9%
Rosebud	7,488	1,833	472	26%
Santee	357	119	71	60%
Crow Creek	1,230	375	257	69%
Pine Ridge	11,353	2,787	1,157	42%
Cheyenne River	4,308	1,075	292	27%
Sisseton	2,434	475	201	42%
Yankton	1,338	289	190	66%
TOTAL	36,156	8,813	3,355	38%

SOURCE: (U.S. Department of Commerce, 1974)

REFERENCES

Kappler, Charles J., 1904-1941; Indian Affairs, Laws and Treaties, Volumes 1 through 5, (U.S. Government Printing Office, Washington, D.C.).

U.S. Department of Commerce, 1974; Federal and State Indian Reservations and Indian Trust Areas, (U.S. Government Printing Office, Washington, D.C.).

CHAPTER 2

MISSOURI RIVER AT SIOUX CITY, IOWA: UPSTREAM DEPLETIONS, DOWNSTREAM DEMANDS, AND REMAINING WATER SUPPLY

2.1 INTRODUCTION

This chapter sets out statistics compiled principally by the U.S. Bureau of Reclamation and the U.S. Army Corps of Engineers related to the available streamflow of the Missouri River at Sioux City, Iowa. The statistics are presented for both the historic period from 1865 to 1970 and the future - 1970 to ultimate development of the Missouri River Basin as projected by the Missouri River Basin Commission.

The purpose in presenting statistics developed by the federal agencies - principally the Bureau of Reclamation (USBR) and Corps of Engineers (COE) - is to provide an understanding of the data that are most frequently provided to the U.S. Congress and to the Missouri River Basin states for decision-making related to water resources development such as industrial marketing, inter-basin transfer, and downstream navigation. The chapter reports the investigation of the assumptions upon which the federal statistics are predicated. The inconsistencies in the federal statistics are reported, and the conflicts in conclusions regarding future water availability are identified.

In discussing the statistics developed by the federal agencies, it was not intended to endorse those statistics. An independent study to derive an information base comparable to USBR and COE is a massive undertaking. While independent study may be necessary to ultimately resolve water availability issues in the Missouri River Basin, the investigation reported here does not develop independent basic data. However, the conclusions from independent study of that basic data will assist in identification of subject areas needing further work. Previous work by the federal agencies has not addressed the conflicts of future development in the Missouri River Basin with Indian water requirements. The conclusions reported in this chapter do address those conflicts.

The chapter is organized to first describe the statistics related to historic and future depletions above Sioux City, Iowa. These depletions are the upstream demands on the river. Downstream demands, which consist of water requirements for water quality, municipal supplies, and navigation are then discussed. The streamflows at Sioux City, Iowa, reflecting various levels of upstream depletion, are reported from the detailed operation studies of the COE. More attention is given to the conflicts between competing uses of water during moderate and extreme drought conditions than has been presented in previous federal reports. The chapter concludes with discussion of water availability as it relates to Indian water requirements of the United Sioux and other Missouri River Basin tribes.

2.2 DEPLETIONS

This section focuses on the historic and future depletion estimates for the Missouri River above Sioux City, Iowa. The principal source of data for the historic depletions (prior to 1970) is the Missouri River Basin Comprehensive Framework Study (Missouri Basin Inter-Agency Committee, June 1969). Future depletions were also prepared for Framework Study, but those statistics have been subsequently modified by the U.S. Bureau of Reclamation, as will be shown. The USBR is currently working on a revised depletion study, but the work is not completed (Rick Gold, USBR, November 1978).

2.2.1 Historic Depletions

Depletion estimates for the period 1865 through 1970 are summarized in Table 2-1. The difference between the depletion estimate provided by the Missouri River Basin Comprehensive Framework Study and the depletions used by the Corps of Engineers (COE) is 1,591,000 acre-feet. The COE in its early operation studies gave the following basis for using 2,219,000 acre-feet:

> "4. The Task Force on Streamflow Depletions of the Missouri River Basin Comprehensive Framework Study made a detailed examination of water resource development that has taken place in the basin and developed estimates of the effects of this development upon historical streamflow. The current (or 1970) development level was selected as a base to reflect these effects through the historical period and for extending the effects to future levels of water resource development." (COE, March 1970, p.2)

TABLE 2-1

HISTORIC DEPLETION ESTIMATES
MISSOURI RIVER BASIN ABOVE SIOUX CITY, IOWA

PERIOD	DEPLETION (ACRE-FEET PER YEAR)	REFERENCE(1)
1865-1910	2,721,300	MBI-AC, June 1969, p.136
1910-1949	1,038,900	" , " " , "
1949-1970	2,772,000	" , " " , "
1910-1970	3,810,900	" , " " , "
	2,219,000	COE, 6-69, p.3
	2,219,000	COE, 12-75, p.4

(1) Sources: MBI-AC is Missouri River Basin Comprehensive Framework Study, Vol. 6, Hydrologic Analyses and Projections (June 1969); COE, 6-69 is Corps of Engineers, Main Stem Reservoir Operation Studies (March 1970); and COE 12-75 is Corps of Engineers, Main Stem Reservoir Regulation Studies, Series 12-75, (February 1976).

TABLE 2-2

MISSOURI RIVER ABOVE SIOUX CITY, IOWA
MAJOR PROJECTS AT 1970 DEVELOPMENT LEVEL

	Major Reservoirs Affecting 1970 Flows				Major Irrigation Projects Assumed Depleting By 1970			
Subbasin	Name	Agency	Capacity	Year of Closure	Name	Agency	Acres	Remarks
			(Acre-Feet)					
Upper Missouri	Clark Canyon	BR	257,000	1964	East Bench	BR	49,800	
	Kennison	BR	9,000	Future	West Bench	BR	6,800	1
	Tiber	BR	1,368,000	1956	Lower Marias	BR	0^2	1
	Ruby	Mont.	39,000	1938	Ruby R. Stor. Proj.	MSWB	34,000	
	Willow Creek	Mont.	17,000	1938	W. Cr. Stor. Proj.	MSWB	3,500	
	Hyalite	Mont.	8,000	1950	Middle Creek	MSWB	2,700	
	Deadman's Basin	Mont.	57,000	1941	Deadman's B. Proj.	MSWB	15,000	
	Canyon Ferry	BR	2,051,000	1954	Helena Valley	BR	13,000	
					Crow Creek	BR	5,000	
	Fort Peck	CE	19,100,000	1937				
					Broadwater-Mo.	MSWB	7,100	
Yellowstone	Bull Lake	BR	152,000	1938	Riverton	BR	60,000	
	Boysen	BR	952,000	1951	Hanover-Bluff	BR	6,500	
	Anchor	BR	17,000	1960	Owl Creek	BR	13,000	1
	Yellowtail	BR	1,375,000	1965	Lower Yellowstone	BR	44,300	
	Lodge Grass	BIA	23,000	1942	Crow Irrig. Proj.	BIA	30,600	
					Shoshone	BR	80,000	
					Buffalo Rapids	BR	21,000	
	Tongue River	Mont.	68,000	1936				
Western Dakota	Bowman-Haley	CE	73,900	1966				
	Cold Brook	CE	7,200	1952				
	Cottonwood Springs	CE	8,340	1969				
	Dickinson	BR	6,700	1950	Dickinson Unit	BR	400	
	Heart Butte	BR	226,000	1949	Heart River Unit	BR	4,000	
	Shadehill	BR	357,000	1951	Shadehill	BR	0^2	1
	Keyhole	BR	340,000	1952	Belle Fourche	BR	57,100	
	Angostura	BR	160,000	1949	Angostura Unit	BR	12,000	
	Pactola	BR	99,000	1956	Rapid Valley	BR	8,900	
Eastern Dakota	Jamestown	BR	221,000	1963	Fort Clark Unit	BR	2,000	

1. No depletion before 1970.

Source: MBI-AC, June 1969, Vol. 6, Hydrologic Analyses and Projections, p.73.

TABLE 2-3

MISSOURI RIVER ABOVE SIOUX CITY, IOWA
DETAILED HISTORIC DEPLETION ESTIMATES

			Depletions							
						1949 to 1970 by Function				
Area No.	Subbasin and General Area Description	Gaging Station[1]	Total 1910 to 1970	1910 to 1949	1949 to 1970	Irrigation Farming	Large[2] Reservoir Evap.	Forestry[3] Practices	Watershed[4] Treatment and Ponds	Other Uses
						(Thousand Acre-Feet)				
	UPPER MISSOURI									
1	Beaverhead River Basin	6-185	91.2	14.0	77.2	70.7	6.8	- 0.7	0.4	
2	Ruby River Basin	6-230	40.6	40.9	- 0.3			- 0.3		
3	Bighole River Basin	6-255	- 7.3		- 7.3			- 7.3		
5	Jefferson River Valley Area	6-345	4.7		4.7	4.7				
6	Madison River Basin	6-410	- 1.6		- 1.6	7.6		- 9.4	0.2	
7	Gallatin River Basin	6-525	24.1		24.1	28.0		- 4.3	0.4	
9	Missouri Valley Area above Toston	6-545	70.1	45.0	25.1	25.1				
11	Smith and Dearborn Rivers Area		9.4	-25.0	34.4	23.0		10.0	1.4	
10	Sun River Basin	6-890	112.1	96.3	15.8	5.8	10.0	- 0.2	0.2	
13	Marias-Teton River Basins	6-1095	135.7	34.0	101.7	53.7	40.0	- 1.1	9.1	
14	Arrow-Judith River Basins	6-1150	11.3		11.3	5.6		- 0.8	6.5	
15	Musselshell River Basin	6-1305	46.1	20.0	26.1	23.1		- 2.8	5.8	
17	Missouri Valley Area to Fort Peck	6-1320	145.2	- 9.0	154.2	30.0	95.0		29.2	
	Evaporation from Fort Peck		441.0	441.0						
	Subtotal above Fort Peck Dam		1122.6	657.2	465.4	277.3	151.8	-16.9	53.2	
35	Milk River Basin	6-1745	77.8		77.8	36.9	1.0		39.9	
36	Poplar River Basin	6-1810	3.7		3.7	0.6			3.1	
37	Missouri Valley Area to Williston	6-3300	40.2	16.0	24.2	12.0			12.2	
	Subtotal Fort Peck to Garrison		135.7	16.0	119.7	49.5	1.0		55.2	14.0
	Total		1258.3	673.2	585.1	326.8	152.8	-16.9	108.4	14.0[5]
	YELLOWSTONE									
18	Yellowstone River above Livingston	6-1925	6.8		6.8	8.0		- 1.3	0.1	
19	Stillwater River Basin	6-2050	3.5		3.5	3.5				
20	Clarks Fork River Basin	6-2085	4.3		4.3	4.7		- 1.8	1.4	
21	Shields-Boulder-Rock Creek	6-2145	30.2	5.5	24.7	20.2		- 1.4	5.9	
22	Wind River Basin	6-2590	193.9	104.3	89.6	36.2	53.8	- 6.4	6.0	
23	Greybull River Basin	6-2775	10.7	10.0	0.7			0.1	0.6	
24	Bighorn Valley Area above Kane		28.1	0.3	27.8	21.3			6.5	
25	Shoshone River Basin	6-2850	112.9	36.2	76.7	76.3	0.9	- 1.6	1.1	
26	Bighorn Valley Area to St. Xavier	6-2870	26.4		26.4		25.8	- 0.2	0.8	
28	Tongue River	6-3095	16.2	4.5	11.7	7.6	1.8	- 1.9	4.2	
29	Yellowstone Valley to Miles City	6-3090	35.6	10.4	25.2	16.6		- 3.0	9.9	1.7
30	Upper Powder River Basin	6-3170	13.4	3.5	9.9	3.0		- 0.6	7.5	
31	Middle Powder River Basin	6-3245	4.3	1.2	3.1			1.1	2.0	
32	Lower Powder River Basin	6-3265	14.2	2.9	11.3	3.6		1.1	6.6	
33	Lower Yellowstone to Sidney	6-3295	106.1	80.3	24.8	12.1			12.7	
	Total		629.9	268.9	361.0	213.1	82.3	-15.9	65.3	16.2[6]

TABLE 2-3 - continued

WESTERN DAKOTA										
1	Little Missouri River Basin	6-3370	28.7	5.0	23.7	8.2		1.5	14.0	
	Subtotal above Garrison Dam		28.7	5.0	23.7	8.2		1.5	14.0	
2	Knife River Basin	6-3405	5.2	0.9	4.3	1.9			2.4	
3	Heart River Basin	6-3490	23.8	1.4	22.4	9.5	8.0	0.1	3.3	1.6
4	Cannonball River Basin	6-3540	9.4	1.2	8.2	4.2		0.1	3.9	
5	Grand River Basin	6-3580	51.5	3.2	48.3	25.8	14.3	0.2	5.0	3.0
6	Moreau River Basin	6-3610	20.8	5.8	15.0	7.8			7.2	
7	Upper Cheyenne River Basin	6-4015	75.8	4.2	71.6	47.4	9.7	0.1	14.4	
8	Belle Fourche River Basin (Wyo.)	6-4285	1.8	0.4	1.4		7.0	-11.1	5.5	
9	Lower Cheyenne Basin	6-4395	76.2	3.0	73.2	51.0	1.3		15.5	5.4
	Subtotal Garrison to Oahe		264.5	20.1	244.4	147.6	40.3	-10.6	57.2	9.9
10	Bad River Basin	6-4415	15.8	7.5	8.3	2.0		0.4	5.9	
	Subtotal Oahe to Big Bend		15.8	7.5	8.3	2.0		0.4	5.9	
11	White River Basin	6-4520	56.5	14.3	42.2	19.4		0.6	22.2	
	Subtotal Big Bend to Ft. Randall		56.5	14.3	42.2	19.4		0.6	22.2	
	Total		365.5	46.9	318.6	177.2	40.3	- 8.1	99.3	9.9[7]
EASTERN DAKOTA										
1	Missouri Valley Williston to Bismarck		78.5	9.4	69.1	54.0			4.7	10.4
	Subtotal above Garrison Dam		68.1	9.4	58.7	54.0			4.7	
	Subtotal below Garrison Dam		10.4		10.4					10.4
2	Missouri Valley Bismarck to Mobridge		16.7	6.3	10.4	5.1			3.2	2.1
3	Missouri Valley Mobridge to Pierre		27.0	7.8	19.2	14.7			2.5	2.0
	Subtotal Garrison to Oahe		54.1	14.1	40.0	19.8			5.7	14.5
7	Missouri Valley Pierre to Sioux City		77.8	17.2	60.6	44.2		0.7	10.7	5.0
	Subtotal of Oahe to Gavins Point			17.2	59.8	44.2		0.7	9.9	5.0
4	James River Basin	6-4785	62.3	4.4	57.9	48.2	2.4		2.3	5.0
5	Vermillion River Basin	6-4790	12.3	0.6	11.7	10.2			0.5	1.0
6	Big Sioux River Basin	6-4855	40.9	3.6	37.3	27.0			2.9	7.4
	Total		315.5[9]	49.3	266.2	203.4	2.4	0.7	26.8	32.9[8]

1-Location of gaging stations on plates 12 and 17.

2-Includes FWL developments causing depletions during the period of record. They are generally insignificant, but exceptions are U-L Bend in Area 17 of Upper Missouri Subbasin and Area 1 of Eastern Dakota Subbasin associated with Garrison Diversion Unit. Neither is completed to date, but will evaporate 50.0 and 60.0 thousand AF, respectively.

3-Includes selective cutting, thinning, and management practices which increase runoff.

4-Effects on all lands (Federal and private) from: land treatment (contouring, terracing, drainage and water spreading); minor impoundments (farm ponds, dugouts, erosion control, fisheries, recreation ponds and small irrigation reservoirs of all agencies, groups and individuals); and upstream watershed structural measures.

5-Rural domestic and livestock - 10.4 Mining - 0.1 M&I - 3.5

6-Rural domestic and livestock - 7.5 Mining - 2.5 M&I - 4.5 Thermal power - 1.7

7-Rural domestic and livestock - 1.3 Mining - 1.4 M&I - 7.2

8-Rural domestic and livestock - 22.5 Thermal power - 10.4

9-Evaporation from five main-stem reservoirs in this reach will deplete another 1.1 million acre-feet.

Source: MBI-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, p.76.

In its later investigations, the COE made precisely the same statement, (COE, February 1976, p.3) but further qualified its depletion estimates as follows:

> "B-5. The depletion estimates referred to in the preceding paragraph were made in the mid-1960's. After reviewing these estimates in some detail in connection with their current Northern Great Plains Resource Program, the USBR concluded that the 1970-level estimates presented in the Framework study were satisfactory for continued use." (COE, February 1976, p.4)

Large reservoir evaporation apparently accounts for the difference between the Framework Study and COE depletion estimates for the period 1910 to 1970. The Comprehensive Framework Study provided estimates of large reservoir evaporation as a component of the 3,810,900 acre-feet depletion estimate for the 1910-1970 period. The COE estimated large reservoir evaporation on a monthly basis in its reservoir operation studies. Therefore, the two depletion estimates should be compatible.

The Missouri River Basin Comprehensive Framework Study provides a list of the major projects in operation prior to 1970. Those projects are listed in Table 2-2. While the projects may account for some of the larger depletions, the table does not include all federal projects, and many private projects are not included.

The detailed depletions estimates of the Comprehensive Framework Study are presented in Table 2-3. These data are consistent with the statistics summarized in Table 2-1 for the depletions credited to the Framework Study.

2.2.2 Future Depletions

The Missouri River Basin Comprehensive Framework Study provides estimates of future depletions above Sioux City, Iowa as summarized in Table 2-4. Future depletions from 1970 to 2020 were projected to total 8,725,200 acre-feet per year.

TABLE 2-4

FUTURE STREAMFLOW DEPLETIONS ABOVE SIOUX CITY, IOWA

Time Period	Depletion (1000 Ac-Ft Per Year)
1970-1980	2267.5
1980-2000	2886.7
2000-2020	3571.0
1970-2020	8725.2

Source: MBI-AC, June 1969, Vol. 6, Hydrologic Analyses and Projection, p.136.

More detailed summaries of future depletions from the Framework Study are presented in Table 2-5. The sum of the 2020 depletion levels for each subbasin is 8,160,400 acre-feet, apparently in disagreement with the total of 8,725,200 acre-feet given in Table 2-4. An explanation for the difference in depletion estimates was not discovered.

Special attention is drawn to the "forestry management" and precipitation management" entries in Table 2-5. In the Upper Missouri and Yellowstone subbasins it was projected the negative depletions (streamflow gains) will be developed from these watershed management theories. By year 2020 the expected increase in streamflow in the two headwater subbasins would total 947,500 acre-feet according to the projection. While some improvement in watershed management may increase runoff in the future, the speculation and conjecture necessary to arrive at projections of this nature should be recognized.

The Corps of Engineers in its 6-69 series of operation studies of the Missouri River used depletion estimates presented in the Comprehensive Framework Study. For the period 1970 to 2000 the COE used growth in average annual depletions of 5,415,000 acre-feet while citing the "Task Force on Streamflow Depletions of the Missouri River Basin Comprehensive Framework Study" as its source, (COE, 6-69, March 1970, pp. 2&3). In its more recent operation studies, series 12-75, the COE used revised depletion estimates citing the USBR as its source of information:

> "B-5. The depletion estimates referred to in the preceding paragraph were made in the mid-1960's. After reviewing these estimates in some detail in connection with their current Northern Great Plains Resource Program, the USBR concluded that the 1970-level estimates presented in the Framework study were satisfactory for continued use. However, revised estimates for expected post-1970 depletions were developed by that agency and have been incorporated in the current series of long range regulation studies. Essentially these revisions consisted of a significant slowdown in the rate of depletion growth for all areas above Sioux City." (COE, 12-75, February 1976, p.4)

The revised depletions utilized by the COE in its operation studies are summarized in Table 2-6. For the period 1970 to 2000 the COE used a "revised" projected growth in annual depletions above Sioux City of 2,588,000 acre-feet, a reduction of 2,827,000 acre-feet per year from the depletions used in the 6-69 operation studies. Ultimate depletion upstream from Sioux City totaled 6,809,000 acre-feet greater than the 1970 depletion level in the most recent operation studies.

The USBR in its draft environmental impact statement on water for energy cited the depletions estimates in the 12-75 series of COE operation studies. In other words, the COE cites USBR as its source of depletion estimates in the 12-75 series operation studies (COE, 12-75, February 1976), and the USBR cites the COE in its impact statement on water marketing (USBR, October 1976, p.2-40). The revisions consisting of a "significant slow down in the rate of depletion growth for all areas above Sioux City" are not published.

TABLE 2-5

FUTURE AVERAGE ANNUAL STREAMFLOW DEPLETIONS ABOVE 1970 LEVEL
BY SUBBASIN AND USE OF WATER
MISSOURI RIVER ABOVE SIOUX CITY, IOWA
(1000 ACRE-FEET)

Type of Use	Upper Missouri 1980	Upper Missouri 2000	Upper Missouri 2020	Yellowstone 1980	Yellowstone 2000	Yellowstone 2020
Cropland Irrigation - Full Service	263.0	512.2	671.2	272.5	683.6	975.6
Cropland Irrigation - Supplemental	43.0	116.0	150.5	53.4	102.5	122.0
Irrigation Systems Rehabilitation	0	0	0	-19.4	-44.5	-64.2
Municipal and Rural Domestic Use	11.4	24.0	30.7	124.7	106.0	116.0
Industrial and Mineral	0	0	0	195.4	355.2	694.7
Thermal-Electric Power	4.4	19.1	45.4	7.6	41.6	87.8
Large Reservoir Evaporation	31.7	70.0	77.6	11.0	21.7	62.1
Small Reservoir Evaporation	8.0	17.7	34.5	17.9	37.3	43.4
Minor Ponds Evaporation	4.1	14.8	24.1	17.8	35.2	50.8
Livestock	11.5	24.2	42.2	10.5	23.7	40.0
Watershed Treatment and Protection	8.4	25.8	42.9	4.5	10.4	16.8
Wetlands and FWL Areas	15.3	60.8	92.9	11.2	26.9	49.0
Forestry Management	-13.0	-42.0	-70.5	-45.0	-136.0	-165.0
Importations	0	0	0	0	0	0
Exportations(1)	0	45.0	45.0	0	0	0
Precipitation Management	-19.6	-78.4	-196.0	-89.0	-257.0	-536.0
Total	368.2	809.2	990.5	573.1	996.6	1493.0

Type of Use	Western Dakota 1980	Western Dakota 2000	Western Dakota 2020	Eastern Dakota(2) 1980	Eastern Dakota(2) 2000	Eastern Dakota(2) 2020
Cropland Irrigation - Full Service	215.0	455.0	818.0	224.6	803.4	1910.6
Cropland Irrigation - Supplemental	0	0	0	0	0	0
Irrigation Systems Rehabilitation	1.0	2.0	5.0	0	0	0
Municipal and Rural Domestic Use	3.0	6.0	9.0	9.0	16.1	23.7
Industrial and Mineral	0	0	0	0	0	0
Thermal-Electric Power	15.0	30.0	53.0	5.0	15.8	36.0
Large Reservoir Evaporation	1.0	28.0	30.0	82.1	95.3	99.8
Small Reservoir Evaporation	75.0	143.0	186.0	8.6	12.3	15.8
Minor Ponds Evaporation	3.0	10.0	15.0	0	6.4	14.8
Livestock	13.0	26.0	45.0	23.5	52.5	91.5
Watershed Treatment and Protection	20.0	63.0	112.0	10.0	33.0	71.0
Wetlands and FWL Areas	0	0	0	60.7	64.3	148.9
Forestry Management	0	-8.0	-8.0	0	0	0
Importations	0	0	0	0	0	0
Exportations	0	0	0	410.6(3)	1086.6(3)	1999.8(3)
Precipitation Management	0	0	0	0	0	0
Total	346.0	755.0	1265.0	834.1	2185.7	4411.9

---

(1) Upstream depletion of Milk River by Canada.

(2) Accounts for both initial and ultimate stages of the Garrison Diversion Unit, Oahe Diversion Unit, other Federal and private irrigation units diverting from the Missouri River, and return flow to the Missouri River:

1980	2000	2020
775.0	2022.6	4047.4

(3) Export to Souris and Red Rivers via Garrison Diversion Unit.

Source: MIB-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, pp.130-132.

TABLE 2-6

PROJECTED GROWTH IN ANNUAL
DEPLETIONS ABOVE SIOUX CITY, IOWA
(1000 ACRE-FEET)

Reach	1970 - 2000	1970 - Ultimate
Above Fort Peck	266	1040
Fort Peck to Garrison	1392	3949
Garrison to Oahe	773	1450
Oahe to Fort Randall	42	160
Fort Randall to Gavins Point	48	180
Gavins Point to Sioux City	67	30
Total Above Sioux City	2588	6809

Source: COE, 12-75, February 1976, p.4.

2.3 DOWNSTREAM DEMANDS

The discussion of historic and future depletions set forth above deals with the magnitude of streamflow reductions upstream from Sioux City, Iowa. The depletions are the result of upstream demands for water. Below Sioux City the COE has identified the magnitude of streamflows needed to satisfy downstream demands. Those demands are summarized in Table 2-7.

TABLE 2-7

STREAMFLOWS AT SIOUX CITY, IOWA
TO SATISFY DOWNSTREAM DEMANDS
IN THE MAINSTEM MISSOURI RIVER

		Streamflow	
Purpose	Period of Use	CFS	Acre-Feet For Period
Navigation	April 1 to December 1	29,000(1)	14,035,250
Municipal Supply	Annual	6,000(2)	4,343,900
Water Quality	Annual	1,000(3)	724,000

(1) 29,000 cfs is the lower end of the range for navigation requirements. The upper end, 35,000 cfs, is equivalent to 16,939,090 acre-feet. (COE, 12-75, February 1976, p.15)
(2) (COE, 12-75, February 1976, p.14)
(3) (COE, 12-75, February 1976, p.13)

The downstream demand for navigation is the quantity of streamflow considered necessary by the COE for navigation in the "9-foot" channel below Sioux City:

> "C-7. Water Supply for Navigation. The authorized 9-feet deep by 300-feet wide navigation channel on the Missouri River from Sioux City to the mouth is still under construction. Until this construction is completed and sufficient time elapses to complete the formation of the navigation channel, the exact magnitude of flows required for satisfactory navigation cannot be determined. Operating experience to date has indicated that progressively higher flow levels are required to maintain similar loading depths from upstream to downstream portions of the navigation project. While no increase appears necessary between Sioux City, and Omaha, the increase amounts to 6,000 cfs between Omaha and Nebraska City and 4,000 cfs between Nebraska City and Kansas City. The main stem reservoirs are currently being regulated to provide these increased flow levels and these studies assume the requirements will continue. As yet, no flow increase other than that which naturally occurs has been established for locations below Kansas City. The studies utilize navigation target flow rates of 25,000 to 31,000 cfs at Sioux City and Omaha, 31,000 to 37,000 cfs at Nebraska City and 35,000 to 41,000 cfs at Kansas City, depending on the amount of storage in the main stem reservoir system. While flows above these levels could possibly benefit navigation by minimizing dredging and permitting greater loading depths, they were utilized in the studies only as a storage evacuation measure." (COE, 12-75, February 1976, p.14)

After accounting for tributary inflows below Sioux City, the COE determined that 29,000 to 35,000 cfs would be required at Sioux City to meet target navigation flows below Omaha.

During the navigaiton season streamflows would be adequate to meet water quality requirements and downstream needs for municipal supply. However, during the non-navigation season (December 1 to April 1), municipal needs would be met by a minimum flow of 6,000 cfs at Sioux City, provided problems of diversion due to lowered water levels in the river were overcome:

> "C-6. Municipal Water Supply. It was assumed that minimum releases from each project and from the system (usually 6,000 cfs or more from Gavins Point) in combination with system releases necessary to maintain downstream water quality at acceptable levels, would be sufficient to provide for downstream municipal needs. While such an assumption would result in an adequate supply for these needs, problems of access would probably occur, requiring modification in supply intakes, particularly at future development levels." (COE, 12-75, February 1976, p.14)

With 29,000 cfs minimum flow during the navigation season and 6,000 cfs during the non-navigation season, the minimum annual downstream demand would total 15,475,250 acre-feet per year.

2.4 MISSOURI RIVER STREAMFLOWS AT SIOUX CITY UNDER VARIOUS UPSTREAM DEVELOPMENT CONDITIONS

The previous sections have summarized the depletions above Sioux City from the Missouri River and tributaries and the downstream demands on the main stem. This section summarizes the findings of the COE on the impacts of upstream development and downstream demand on streamflows at Sioux City.

2.4.1 Natural Streamflow

The natural streamflow estimated by the USBR at Sioux City, Iowa, is given as 28.4 million acre-feet (USBR, October 1976, p.1-3). The USBR refers to the value as the "average annual flow with zero depletions".

Although the basis for the USBR estimate was not given, the value can be checked using COE streamflows adjusted to the 1949 level of development and adding historic depletions prior to 1949:

TABLE 2-8

NATURAL, AVERAGE ANNUAL STREAMFLOW AT
SIOUX CITY, IOWA, BASED ON FEDERAL STATISTICS

Average annual streamflow, Sioux City, Iowa, 1949 Depletion Level, 1898 to 1975(1)	=	24,778,000 acre-feet
1865 to 1910 Depletion Level(2)	=	2,721,300 acre-feet
1910 to 1949 Depletions(3)	=	1,038,900 acre-feet
Average Annual Flow With Zero Depletions	=	28,538,200 acre-feet

(1) From COE, May 1977, unpublished computer runs, #457105
(2) MBI-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, p.136
(3) Ibid, p.78

2.4.2 Projected Future Streamflows

The primary purpose of the COE operation study cited so frequently, (COE, 6-69, March 1970, and COE, 12-75, February 1976) was to determine the impact of future developments in the Missouri River Basin on streamflows.

The operation studies were simulations of future conditions based on systematic operation of the main stem Missouri River reservoirs: Fort Peck, Garrison, Oahe, Big Bend, Fort Randall and Gavins Point. The main stem reservoir system would be operated as it is today to fulfill the following objectives:

(1) Flood control
(2) Power production
(3) Navigation
(4) Water supply
(5) Water quality control
(6) Fish, wildlife, and environmental enhancement

Numerous assumptions are incorporated in the simulation studies. Discussion of those assumptions and assessments of the effects of those assumptions is beyond the purpose of this chapter, but careful evaluation of the assumptions and simulation techniques may be necessary to totally evaluate the impact on Indian water right issues.

The most recent COE operation studies were performed to evaluate the impact on streamflow of future water marketing for industrial purposes. The series of operation studies examined four alternative futures as described below: (See COE, 12-75, February 1976, pp. 1&2)

(1) base study for the year 2000, no coal development; see Table 2-6, 1970-2000 for future depletions used in operation study.
(2) base study including withdrawals of 500,000 acre-feet for coal by year 2000; depletions equal values in Table 2-6 plus 500,000 acre-feet per year.
(3) base study the same as above but including withdrawals for coal at 1,000,000 acre-feet per year by 2000.
(4) base study using "ultimate depletions" (see Table 2-6), and no additional withdrawals for coal.

For the purpose of the investigation for the United Sioux Tribes, reported here, unpublished computer printouts of the COE study of "ultimate depletions" were obtained and evaluated. The ultimate depletions used by COE were revised by USBR from earlier ultimate depletion estimates (see section 2.2.2). Purportedly the ultimate depletions represent the highest foreseeable demand in the Missouri Basin above Sioux City. The demands for ultimate depletions are greater than the demands for year 2000 development with additional withdrawals of up to 1,000,000 acre-feet for coal.

In the Missouri River Basin Comprehensive Framework Study depletions beyond year 2020 were not addressed, but depletions beyond 1970 to year 2020 were given as 8,725,200 acre-feet (see Table 2-4), which depletions are substantially higher than the ultimate depletions used by COE of 6,809,000 acre-feet (see Table 2-6). The COE does not address the time for ultimate depletions to be in use. The USBR uses the year 2060 rather than 2020 in its environmental impact statement on water marketing (USBR, October 1976, p.1-3). USBR has revised ultimate depletions downward by 1,916,200 acre-feet from the 2020 depletion figure in the Framework Study and has moved the date of achieving the lower depletion figure from year 2020 to year 2060.

On the basis of the COE simulation studies using ultimate depletions, the streamflows of Table 2-9 were determined available at Sioux City depending on the period of record.

TABLE 2-9

COMPARISON OF AVAILABLE STREAMFLOWS
WITH DOWNSTREAM DEMANDS
MISSOURI RIVER AT SIOUX CITY, IOWA
(1000 ACRE-FEET)

Period	Average Streamflow(1)	Downstream Demand(2)	Deficit
1898 - 1975	14,965	15,475	510
1957 - 1961	10,419	15,475	5056
1932 - 1942	6,520	15,475	8955

(1) From COE 12-75 Series Computer Runs, Ultimate Depletions, 1898-1975, unpublished.
(2) See Section 2.3.

Over the long period of historic streamflows, the difference in average streamflow and downstream demand would be small, 510,000 acre-feet. However, in a moderate drought period such as the period 1957 to 1961 the shortage in meeting downstream demands would average 5,056,000 acre-feet or approximately 33 percent of the downstream demand. In a severe drought, 1932 to 1942, the available streamflows would average more than 50 percent of the downstream demand.

The COE evaluated the downstream shortages somewhat differently. The COE assessed the effect of projected depletions on navigation as summarized in Table 2-10. Unfortunately, most of the years with little or no navigation potential would occur in a succession of dry years such as the period from 1932 to 1942. It is questionable as to how workable navigation of the Missouri River could be considered with risk of such a prolonged duration of non-navigable streamflows.

2.5 INDUSTRIAL WATER MARKETING AND POTENTIAL CONFLICTS WITH INDIAN WATER REQUIREMENTS

The USBR in its most recent evaluation of the Missouri River Basin, considered the availability of water for industrial marketing. The agency used

TABLE 2-10

EFFECTS ON PROJECTED ULTIMATE DEPLETIONS ON NAVIGATION

Season Length (Months)	Years of Service
8.00	42
6.25	2
6.00	2
5.75	11
5.50	2
5.00	1
4.75	1
4.25	2
4.00	3
No Navigation	12
Total Years	78
Average Season	5.96 Months

Source: (COE, 12-75, February 1976, p.21)

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the natural flow and ultimate depletion statistics cited earlier in this chapter. Table 2-11 is considered a reasonably accurate summary of the streamflow depletion statistics summarized in the draft environmental impact statement on water marketing plan.

TABLE 2-11

USBR WATER MARKETING STATISTICS

Average annual streamflow with Zero Depletions at Sioux(1)	= 28,400,000 acre-feet
Ultimate Depletions	
1865 - 1910	= 2,721,300 acre-feet
1910 - 1970	= 3,810,900 acre-feet
1970 - Ultimate	= 6,809,000 acre-feet
Total(1)	= 13,341,200 acre-feet
Apparent Surplus	= 15,058,800 acre-feet

(1) See USBR, October 1976, p.1-3.

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The principal technical difficulties related to the USBR analysis are as follows:

(1) The apparent average surplus is insufficient to satisfy downstream demands.

(2) The apparent average surplus is substantially reduced in drought periods, and the deficit in downstream navigation requirements becomes greater.

(3) USBR did not consider that the marketing of surplus water from the projected growth in federal projects includes water requirements on Indian lands throughout the Missouri River Basin. (See Chapter 5)

(4) USBR did not consider water requirements on Indian lands outside federally designated projects. (See Chapter 4)

REFERENCES

Corps of Engineers, (COE), March 1970; Missouri River, Mainstem Reservoir Operation Studies, 6-69, (Office of the Division Engineer, Omaha, Nebraska), 35 pp plus tables and plates.

Corps of Engineers, (COE), February 1976; Missouri River Mainstem Reservoir Regulation Studies, Series 12-75, (Office of the Division Engineer, Omaha, Nebraska) 25 pp plus tables and plates.

Corps of Engineers, May 1977; unpublished computer printout MRD-Reservoir Control Center.

Corps of Engineers, date unknown; unpublished computer printout, 12-75 ultimate.

Gold, Rick, U.S. Bureau of Reclamation, Billings, Montana, November 1978; telephone conversation with Mike Watson, Morrison-Maierle, Inc.

Missouri Basin Inter-Agency Committee, June 1969; Missouri River Basin Comprehensive Framework Study, Volume 6, Hydrologic Analyses and Projections (Published December 1971) 143 pp.

U.S. Bureau of Reclamation (USBR), October 1976; Draft Environmental Impact Statement, Water for Energy, Missouri River Reservoirs, Pick-Sloan Missouri Basin Program (Upper Missouri Region, Billings, Montana).

CHAPTER 3

IRRIGATION WATER REQUIREMENTS

3.1 INTRODUCTION

The chapter presents determinations of water requirements for irrigation for the United Sioux Indian Reservations. Irrigation water requirements have been used in major litigations in the past as a measure of Indian water rights. Notable examples are Henry Winter v. United States (207 US 564, 1908) and Arizona v. California (373 U.S. 546). Findings of the U.S. Supreme Court in Arizona v. California were as follows in reference to the five Colorado River Indian Reservations[1]:

> "The Master found both as a matter of fact and law that when the United States created these reservations or added to them, it reserved not only land but also the use of enough water from the Colorado to irrigate the irrigable portions of the reserved lands. The aggregate quantity of water which the master held was reserved for all the reservations is about 1,000,000 acre-feet, to be used on around 135,000 irrigable acres of land." (Arizona v. California, 373 U.S. 546, p. 596, June 3, 1963).

The Supreme Court found that the five Indian Reservations adjacent to the Colorado River were entitled to "about 1,000,000 acre-feet" for irrigation "on around 135,000" acres of irrigable land.

The Supreme Court was presented with many arguments and alternatives for measuring the extent of the Indian water rights. It rejected all arguments except the use of irrigable acreage as the measure. A pertinent section of the opinion states:

> "How many Indians there will be and what their future needs will be can only be guessed. We have concluded, as did the Master, that the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage." (Arizona v. California, 373 U.S. 546, p. 601, June 3, 1963).

On the strength of the direction established by the U.S. Supreme Court, the investigations of irrigation water requirements for the United Sioux Indian Reservation have concentrated on the determination of the irrigation water requirements per acre of irrigable land, the total area of irrigable land, and the total irrigation water requirement for the irrigable lands.

Findings of this investigation, which are supported in detail in the chapter, are presented in Table 3-1.

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[1] The reservations were Chemhuevi, Cocopah, Yuma, Colorado River and Fort Mohave, which were created by Acts of Congress and Executive Orders

TABLE 3-1

SUMMARY OF IRRIGATION WATER REQUIREMENTS FOR UNITED SIOUX INDIAN RESERVATIONS (MAY-SEP, SPRINKLER IRRIGATION)

RESERVATION	UNIT WATER REQUIREMENT (ACRE-FEET PER ACRE)	TOTAL IRRIGABLE ACREAGE	TOTAL IRRIGATION WATER REQUIREMENT (ACRE-FEET PER YEAR)
Standing Rock	4.35	303,650	1,320,870
Lower Brule	4.94	38,246	188,935
Devils Lake	3.94	142,465	561,312
Flandreau	4.13	2,179	8,999
Rosebud	4.85	445,474	2,160,549
Santee	4.68	31,822	148,920
Crow Creek	4.94	81,561	402,911
Pine Ridge	4.51	670,549	3,024,180
Cheyenne	4.80	377,860	1,813,730
Sisseton	4.25	605,902	2,575,084
Yankton	4.68	273,023	1,277,748
TOTALS	4.54	2,972,731	13,483,238

3.2 DEFINITION OF TERMS

To facilitate discussion of irrigation water requirements, several terms and concepts require definition. This section is devoted to those terms and concepts.

3.2.1 Crop Water Requirement

Crop water requirement is the basis of determining irrigation water requirements. Crop water requirements are synonomous with terms such as evapotranspiration and consumptive use.

- Crop Evapotranspiration (consumptive use) - the quantity of water consumed or utilized by crops (or evaporated from soil surfaces) in the production of plant tissue and in photo respiration.

- Potential Evapotranspiration - the quantity of water consumed by the crop environment if the water supply to the plant is not limited. If less than the water needed for potential evapotranspiration is supplied, the crop will not produce optimum yields. Water in excess of potential evapotranspiration cannot be used beneficially in photosynthesis or photo respiration processes.

Potential evapotranspiration becomes a basic factor in determining irrigation water requirements for establishment of a water right. It is the maximum amount of water than can be beneficially used by the crop in food production. Establishment of crop water requirements for less than potential evapotranspiration results in limitations of crop productivity.

Crop water requirements to satisfy potential evapotranspiration can be supplied by effective precipitation, groundwater and irrigation. In semiarid areas such as the Northern Great Plains, a substantial percentage of potential evapotranspiration must be supplied from irrigation.

- Effective Precipitation - the amount of total annual precipitation falling either as rain or snow that is stored in the soil moisture of the crop root zone and utilized by the crop in evapotranspiration. Effective precipitation does not include precipitation that runs over the surface and consequently does not infiltrate the soil. And effective precipitation does not include precipitation that migrates downward through the soil and to depths beyond the range of plant root system.

In the absence of groundwater available to the root system of the crop, irrigation is required to supply the difference between evapotranspiration and effective precipitation.

3.2.2 Leaching Requirements

Depending on the quality of irrigation water and the chemistry of the soil, application of water may be required in addition to crop water requirements. Additional water may be required for "leaching" or the removal of undesirable chemicals that build up in the root zone of the crop. Chemicals are deposited by the plant and accumulate if not periodically removed. By applying water in addition to evapotranspiration requirements, chemicals are dissolved and migrate in solution with the excess water away from the crop root zone.

3.2.3 Farm Irrigation Water Requirements

In order to provide that portion of the crop water requirement needed from irrigation, a farm application system is necessary. Examples of farm application systems include contour ditch, border dike, rill and sprinkler. Because each of the farm application systems is not totally perfect in delivering only the amount of water needed by the crop, and consequently some water is lost in application, the amount of water available to the irrigation system must be greater than the crop water requirements.

- Farm Water Requirements - amount of water needed for the farm irrigation system to satisfy crop water requirements; the amount of water to be delivered by canal, pipeline, or other conveyance system to the edge of the field where irrigation application takes place.

The efficiency of the farm (field) application system is the basis for determining the farm irrigation requirements. For a crop to utilize irrigation water it must be made available to the root zone of the plant. Efficient application of water to the root zone requires that water must be applied at a rate slow enough as not to exceed the infiltration capability of the soil surface. Also, the duration of the irrigation must be timed not to exceed the moisture holding capacity of the soil within the root zone.

- Crop Root Zone - the area of soil, generally ranging from two to six feet in depth depending on crop, from which the crop is effective in drawing water.

- Deep percolation - water which exceeds the moisture holding capacity of the soil in the crop root zone and consequently migrates to depths below the crop root zone.

- Soil Moisture Capacity - the amount of water held by the soil within the crop zone when the soil has been saturated and water percolating downward by gravity has drained away.

Generally contours, ditches, rills, and borders are less efficient in the application of water than sprinkler systems. From the edge of the field to the crop root zone, more water is lost to surface runoff or deep percolation using surface irrigation methods than with sprinkler irrigation methods.

- Farm Irrigation Efficiency - the amount of water required to satisfy crop requirements as a percentage of the water delivered to the edge of the field. The amount of water delivered to the field's edge is sufficient to cover losses in the application of water to the field.

Waters applied by the farm irrigation system and not utilized by the crop are either permanently or temporarily lost to the source of supply. If the source is a stream, for example, excess water may be discharged back to the stream either as surface water runoff or groundwater return. In either case the returning water is referred to as "return flow". Some water migrating back to a stream system or an aquifer may be intercepted by the root zone of non-crop vegetation and consumed. In the case of sprinkler irrigation, some water is lost before reaching the ground to wind and spray evaporation.

- Return Flow - water not utilized by the irrigated crop or non-crop vegetation that re-enters the source of supply and is available for use. In the case of return flow to a stream, the return flows are available for downstream diversion. In the case of return flow to an aquifer, the return flows add to storage and are available for pumping. The time required for migration of return flows may range from hours to many months.

- Beneficial Consumptive Use - that portion of farm delivery which is utilized by a crop for the beneficial production of food and fibre.

- Non-Beneficial Consumptive Use - that portion of farm delivery which is consumed by non-crop vegetation, evaporated from free water surfaces or lost to wind and spray evaporation (in the case of sprinklers).

- Total Consumptive Use - the sum of beneficial and non-beneficial consumptive use.

- Depletion - the amount of water permanently lost to a source stream or aquifer including total consumptive use and that portion of return flows captured by adjacent streams or non-tributary subsurface formations.

3.2.4 Irrigation Diversion Requirements

In some cases the source of water supply flows through or lies beneath the irrigated area. In other cases the source of supply is removed from the irrigated area, and a conveyance system is used to transport water from the source to the farm. Conveyance losses between the diversion point and the farm are experienced in the latter case. The size of the conveyance loss is dependent on the type and length of the system.

The two basic sources of loss of water in the conveyance system are seepage and evapotranspiration. In unlined canals seepage losses are often high, and vegetation along the canal banks accounts for non-beneficial consumptive use of water. Evaporation from the water surface of a canal is generally small. Lined canals may be effective in reducing seepage losses. Pipelines are the most efficient and expensive means of conveyance.

- Irrigation Diversion Requirement - the amount of water required at the source of supply to provide farm irrigation requirements and replace conveyance losses in transport.
- Conveyance System Efficiency - the ratio of farm irrigation requirements to irrigation diversion requirements expressed as a percentage.

Losses of water in the irrigation conveyance system generally contribute to non-beneficial consumptive use, return flows and depletions, all as defined in the previous section.

The considerations necessary for the determination of irrigation diversion requirements are summarized as follows:

$$IDR = \frac{(PET - EP + SI + L)\ A}{(FE)\ (CE)}$$

where

IDR = Irrigation diversion requirements, acre-feet
PET = Potential Crop Evapotranspiration, feet
EP = Effective Precipitation, feet
A = Project irrigated acres
FE = Farm irrigation efficiency, fraction
CE = Conveyance efficiency, fraction

3.3 POTENTIAL EVAPOTRANSPIRATION

Potential evapotranspiration of crops is determined in the field by measurements of actual water use with scientific instruments, such as lysimeters or neutron probes. The methods are complex and beyond the scope of this discussion. Because the expense of measurements in the field is high, and the measurements require carefully controlled data collection, the measurements are almost exclusively made at agricultural experiment stations. There are only a few locations in the Western United States where long-termed measurements of evapotranspiration have been observed and collected. Notable examples are San Juan Branch Agricultural Experiment Station, New Mexico; Central Washington Agricultural Experiment Station, Prosser, Washinton; and Snake River Conservation Research Center, Kimberly, Idaho.

Researchers in the field of irrigation have developed numerous equations for the estimation of potential evapotranspiration in areas where measurements are not available. The equations predict evaportranspiration based on climatic factors such as temperature, solar radiation, humidity, and wind speed. The equations are adjusted by numerical coefficients to reflect differences in the evapotranspiration by crops.

This section of the chapter presents background information on evapotranspiration measurements in South Dakota and North Dakota and estimates of potential evapotranspiration as derived for the United Sioux Indian Reservations. The estimates were derived using the modified Blaney-Criddle and Jensen-Haise equations.

3.3.1 Evapotranspiration Equations

Numerous methods for prediction of evapotranspiration have been developed. Notable examples, named after the researchers, are the Penman, Jensen-Haise, Blaney-Criddle, and Thornwaite methods. These and other methods are discussed and evaluated by the American Society of Civil Engineers, (ASCE, September 1973). The principal method discussed here is the Modified Blaney-Criddle (USDA, SCS, September 1970). A brief description of Jensen-Haise (ASCE, September 1973) is also given.

The Blaney-Criddle equation was the first widely accepted method of computing evapotranspiration by crops. The method was subsequently modified by the Soil Conservation Service. The modified equation of the Soil Conservation Service is given as follows: (USDA, SCS, September, 1970)

$$U = k_c \, k_t \, f$$

where

U = monthly evapotranspiration, inches.
k_c = crop growth stage coefficient
k_t = .0173t - .314
t = mean monthly air temperature, (^{o}F)
f = (t x p) /100
p = monthly percentage of daylight hours in the year

During the growing season, monthly computations of evapotranspiration are made and totaled to determine seasonal amounts of evapotranspiration. Computations for the United Sioux Indian Reservations were performed using the equation. Crop coefficients for alfalfa, which consumes more water than other crops in the Northern Great Plains, were used. Temperature and precipitation data were used from the weather stations considered most representative of each reservation. Table 3-2 summarizes values used in the computation and the results for the principal months of the growing season, May through September.

Evapotranspiration for the principal months of the growing season, according to the Modified Blaney-Criddle estimating procedure, varies as shown in Table 3-2. Additional water is evapotranspirated during the non-growing season. Sufficient data are not presently available to derive estimates of that amount. The probable magnitude of evapotranspiration during the non-growing season is 5 to 10 inches.

TABLE 3-2

SUMMARY OF EVAPOTRANSPIRATION
ESTIMATES FOR ALFALFA FOR UNITED SIOUX INDIAN
RESERVATIONS USING MODIFIED BLANEY-
CRIDDLE METHOD OF COMPUTATION.
(INCHES)

RESERVATION	WEATHER STATION	PRINCIPAL MONTHS OF GROWING SEASON					SEASON TOTAL
		MAY	JUN.	JUL.	AUG.	SEPT.	
Standing Rock	McIntosh, SD	3.89	6.10	7.90	6.70	3.51	28.10
Lower Brule	Kennebec, SD	4.44	6.76	8.55	7.33	4.04	31.12
Devils Lake	Devils Lake, ND	3.53	5.82	7.26	6.00	3.04	25.65
Flandreau	Flandreau, SD	4.24	6.58	7.83	6.61	3.63	28.89
Rosebud	Winner, SD	4.65	6.97	8.78	7.47	4.19	32.06
Santee	Tyndall, SD	4.80	7.25	8.69	7.37	4.16	32.27
Crow Creek	Kennebec, SD	4.44	6.76	8.55	7.33	4.04	31.12
Pine Ridge	Martin, SD	4.06	6.19	8.10	6.94	3.84	29.13
Cheyenne	Dupree, SD	4.10	6.25	8.26	7.07	3.74	29.42
Sisseton	Sisseton, SD	4.21	6.51	7.86	6.64	3.65	28.87
Yankton	Tyndall, SD	4.80	7.25	8.69	7.37	4.16	32.27
Crop Coefficients (1)		1.10	1.13	1.11	1.06	1.00	-

(1) (U.S.D.A., SCS, September 1970, p.66)

The Jensen-Haise equation was developed in the 1960's and has gained popularity. The data requirements for application include solar radiation data, which is not available at most locations. Consequently, use of the method generally depends on estimates of solar radiation. The Jensen-Haise equation is given as follows:

$$ET = k_c \times E_{tp}$$

$$E_{tp} = C_t\ (T-Tx)\ Rs \times .000673 \times \text{days/period}$$

Where

E_{tp} = potential evapotranspiration

ET = actual evapotranspiration in inches

Ct and Tx are constants adjusted tc climate and elevation

T = mean air temperature, ^{o}F

Rs = solar radiation langleys per day

Kc = adjustment coefficient for alfalfa based on three cuttings.

Computations using the Jensen-Haise method were not performed.

3.3.2 Measurements of Evapotranspiration

The only measurements of crop evapotranspiration in South Dakota, which were discovered during this investigation were taken between 1950 and 1953 at the South Dakota Agricultural Experiment Station, Redfield, South Dakota, (Erie, Leonard J. and Dimick, Neil A., June, 1954). The measurements were collected and compared with results of estimated evapotranspiration using the Blaney-Criddle equation (Blaney, Harry F. and Criddle, Wayne D., 1950), which was just coming into use.

The methods of consumptive use measurements were not reported, and the reliability of the data cannot be assessed. From the measurements the agricultural experiment station concluded that seasonal evapotranspiration computations using the Blaney-Criddle equation were correct.

Measurements by the South Dakota Experiment Station are summarized by crop and by year in Table 3-3.

TABLE 3-3

SEASONAL CONSUMPTIVE USE OF WATER BY CROPS AT THE REDFIELD DEVELOPMENT FARM, REDFIELD, SOUTH DAKOTA (LEONARD AND DIMICK, 1954, p. 8)

Crop and Year	Measured Consumptive Use (Inches)
Alfalfa	
1950	21.8
1951	20.5
1952	23.1
1953	23.6
Dry Beans	
1952	15.8
1953	17.0
Corn	
1951	16.7
1952	16.8
1953	16.4
Flax	
1952	16.0
1953	14.0
Potatoes	
1950	15.3
1951	15.7
1952	15.1
1953	16.8
Soybeans	
1952	15.3
1953	16.0
Sugar Beets	
1951	24.7
1952	23.3
1953	24.0
Wheat	
1953	16.3

The measurements were used to establish crop coefficients for the Blaney-Criddle equation that would be representative of South Dakota. The equation could then be used at any location in the state, and differences in temperature and precipiation would be the principal differences in the irrigation consumptive use requirements from location to location. With minor exception the generalized Blaney-Criddle crop coefficients for seasonal water use were adopted for South Dakota as summarized in Table 3-4.

TABLE 3-4

COMPARISON OF BLANEY-CRIDDLE SEASONAL CROP
COEFFICIENTS AND RECOMMENDED VALUES
FROM REDFIELD MEASUREMENTS (LEONARD & DIMMICK, 1954, p. 8)

Crop	Blaney-Criddle Crop Coefficients Generalized	Blaney-Criddle Crop Coefficients Redfield, S.D.
Alfalfa	.85	.85
Dry Beans	.65	.65
Corn	.80	.70
Flax	.80	.70
Potatoes	.70	.70
Soybeans	.65	-
Sugar Beets	.70	.70
Wheat	.75	.75

Crop coefficients recommended for South Dakota were in agreement with the Blaney-Criddle generalized crop coefficients with the exception of corn and flax. Lower values were recommended for those crops in South Dakota (See Section 3.3.1 for more detailed discussion of Blaney-Criddle equation and crop coefficients).

In North Dakota more recent estimates of evapotranspiration have been made at the Carrington Irrigation Branch Station, a research farm of the Agricultural Experiment Station, North Dakota State University. The Carrington Branch Station is located in northwestern Foster County. Both evapotranspiration and water application efficiency were studied on a 153 acre gravity irrigation unit from 1966 through 1970, (Stegman and Olson, May 1972, p. 1).

For alfalfa, consumptive use without harvest of 25.0 inches was computed for the period following May 1, and consumptive use with two cuttings per season was determined to be 22.0 inches. The alfalfa consumptive use estimate is less than the estimates for the United Sioux Indian Reservations as presented in Tables 3-1 and 3-2, but the Carrington estimate is in reasonable agreement, irrespective of climatic differences between the South Dakota reservations and Carrington, North Dakota.

A principal difficulty with evaluation of the Carrington data on consumptive use is that the data were estimated, not measured. Water balance equations were used to calculate consumptive use from measurements of irrigation application, soil moisture content in the upper four feet of the soil profile, and return flows. In the absence of the supporting measurements and methods of computation, the reliability of the consumptive use estimates cannot properly be assessed. However, in 1970, the implementation of the methodology to predict irrigation water requirements resulted in "considerable differences between measured and estimated" soil moisture deficits toward the end of the irrigation season for alfalfa. (Stegman and Valer, May 1972, p. 6). In other words the irrigation supply made available to the alfalfa crop in 1970, which was a year of three cuttings on the research plot was less than the water requirements, and a soil moisture deficit gradually developed through the irrigation season. The irrigation water supply was made available on the basis of the consumptive use estimating procedure developed at the experiment station.

While it cannot be concluded that the estimating procedure developed by North Dakota State University is totally in error, 1970 data prove that the procedure underestimates irrigation water requirements for alfalfa. Additional research of the supporting measurements and computations from the Carrington Farm, which is beyond the scope of this investigation, should be undertaken to determine the usefullness, if any, of the North Dakota investigation of irrigation water requirements.

Other recent measurements of consumptive use in the western United States using lysimeters for direct measurements show that the modified Blaney-Criddle estimating procedure under-estimates consumptive use. At the San Juan Branch Agricultural Experiment Station in northwestern New Mexico, researchers measured consumptive use in 1974 and 1975, (Gregory and Hanson, April 1976). The data prove that the modified Blaney-Criddle equation (as applied in Section 3.3.1) only estimates 66 per cent of the actual consumptive use for alfalfa for those years, at that location, and during the principal months of the growing season, May through September.

Also the Snake River Conservation Research Center near Kimberly, Idaho, measured alfalfa consumptive use from 1969 through 1975, (Wright, Jensen, Chapman, and Stevens, 1975). The data prove that the modified Blaney-Criddle equation only estimates 73 per cent of actual consumptive use during the principal months of the growing season, May through September.

Measurements of alfalfa consumptive use were collected by the Irrigated Agriculture Research and Extension Center near Prosser, Washington from 1954 through 1962. (Middleton, Pruitt, Crandall, Jensen, September 1967). On the basis of data analysis by the State of Washington, it can be shown that the modified Blaney-Criddle equation, as developed by the Soil Conservation Service, (USDA, SCS, 1970) only estimates 85 per cent of alfalfa consumptive use at Prosser, Washington.

The American Society of Civil Engineers has investigated the various methods for estimating evapotranspiration and concluded as follows with regard to the Blaney-Criddle Method:

> "The Blaney-Criddle method has been modified by many people since its introduction in 1945. Modifications and the original Blaney-Criddle method have been satisfactorily used all over the world and users appear to be satisfied with the results. The only version evaluated in this study, was the USDA-SCS version (Technical Publication 21 Rev. 1970). This method generally yielded estimates that were too low, but appears to fit conditions in the eastern United States." (emphasis added), (American Society of Civil Engineers, September, 1973).

3.3.3 Relationships Between Crop Evapotranspiration and Yield

Detailed consideration of evapotranspiration is justified on the basis of the relationship with crop yield. Substantial research is not available for a variety of crops and a variety of locations. However, researchers have found for some crops that yield is directly proportional to evapotranspiration, (Hanks, R.J., September, 1974), and that yields do not level off or flatten out as potential evapotranspiration is approached. Therefore, it is to the advantage of the irrigator to deliver water sufficient to satisfy potential evapotranspiration and maximize yield per unit of land.

From locations in the western United States where direct measurements of actual evapotranspiration (consumptive use) have been made by lysimeters, data prove that the modified Blaney-Criddle procedure (USDA, SCS, September 1970) as applied in Section 3.3.1, only estimates from 66 to 85 per cent of actual evapotranspiration for alfalfa during the principal months of the growing season, May through September.

3.3.4 Recommended Evapotranspiration

The modified Blaney-Criddle equation was used to estimate consumptive use by alfalfa on the United Sioux Indian Reservations as summarized in Table 3-2. Since the equation has been shown consistently to underestimate alfalfa evapotranspiration requirements in areas where direct measurements of evapotranspiration have been made, an adjustment to the estimated values of Table 3-2 was considered necessary. Table 3-5 summarizes recommended evapotranspiration for determination of reasonable irrigation water requirements for the United Sioux Indian Reservations. The values in Table 3-5 were increased by 25 per cent over the values in Table 3-2. This is equivalent to a conclusion that for South Dakota and North Dakota, the modified Blaney-Criddle equation predicts 80 per cent of actual consumptive use.

On the basis of data from New Mexico and Idaho, larger adjustments than 25 per cent may be reasonable. However, some weight was given the data collected in North and South Dakota, which requires additional investigation to determine its reliability, if any. The principal weakness of the data from the Dakotas was that direct measurements of evapotranspiration were not made.

TABLE 3-5

RECOMMENDED EVAPOTRANSPIRATION FOR ALFALFA ON UNITED SIOUX INDIAN RESERVATIONS FOR MAY THROUGH SEPTEMBER (INCHES)

RESERVATION	MAY-SEPTEMBER BLANEY-CRIDDLE EVAPOTRANSPIRATION(1)	RECOMMENDED ADJUSTMENT	MAY-SEPTEMBER RECOMMENDED EVAPOTRANSPIRATION
Standing Rock	28.10	25%	35.12
Lower Brule	31.12	"	38.90
Devils Lake	25.65	"	32.06
Flandreau	28.89	"	36.11
Rosebud	32.06	"	40.08
Santee	32.27	"	40.34
Crow Creek	31.12	"	38.90
Pine Ridge	29.13	"	36.41
Cheyenne	29.42	"	36.78
Sisseton	28.87	"	36.09
Yankton	32.27	"	40.34

(1) From Table 3-2 based on (USDA, SCS, September 1970).

3.4 EFFECTIVE PRECIPITATION

Effective precipitation is a source of water to supply crop evapotranspiration requirements. It reduces irrigation requirements. Factors affecting total effective precipitation are, (Sprinkler Irrigation Association, 1975, p. 125):

(1) Total precipitation
(2) Intensity of precipitation
(3) Intake rate of soil
(4) Water holding capacity of soil
(5) Evapotranspiration rate of crop
(6) Timing of precipitation in relation to irrigation

The Soil Conservation Service has developed a method for estimating effective precipitation (USDA, September 1970). The method was applied using precipitation data from each reservation and evapotranspiration data from Table 3-2. The effective precipitation was estimated for the principal month of the season, as summarized in Table 3-6:

TABLE 3-6

SUMMARY OF AVERAGE EFFECTIVE
PRECIPITATION FOR UNITED SIOUX INDIAN RESERVATIONS
(INCHES)

	EFFECTIVE PRECIPITATION						PRECIPITATION
RESERVATION	MAY	JUN	JUL	AUG	SEP	TOTAL	TOTAL
Standing Rock	1.89	2.99	1.94	1.68	1.07	9.57	12.55
Lower Brule	1.91	2.75	1.88	1.98	1.11	9.63	12.12
Devils Lake	1.56	2.52	1.92	1.67	1.40	9.07	12.12
Flandreau	2.25	3.36	2.37	2.16	1.82	11.96	16.15
Rosebud	2.13	3.27	2.32	2.29	1.32	11.33	14.36
Santee	2.41	3.37	2.79	2.38	1.76	12.71	16.28
Crow Creek	1.91	2.75	1.88	1.98	1.11	9.63	12.13
Pine Ridge	2.03	2.90	2.16	1.74	1.02	9.85	12.79
Cheyenne	1.80	2.68	1.66	1.36	.84	8.34	10.68
Sisseton	2.21	3.00	2.50	2.23	1.24	11.18	14.66
Yankton	2.41	3.37	2.79	2.38	1.76	12.71	16.28

During the principal months of the non-growing season for alfalfa, October through April, precipitation more than exceeds evapotranspiration in most years. The soil moisture zone, which typically may hold from 6 to 12 inches of water in the alfalfa root zone, is generally filled to capacity. Precipitation in excess of moisture holding capacity either runs off or percolates below the crop root zone.

In early spring, however, prior to the growing season, alfalfa begins to grow and consumes water from the soil storage zone. On the average, a soil moisture deficit of 2.00 inches at the beginning of May was estimated for each reservation, based on local climatological data. The soil moisture deficit, created by net evapotranspiration in the spring portion of the non-growing season, must be replaced by irrigation in the growing season.

3.5 LEACHING REQUIREMENTS

Water requirements for leaching depend on the chemicals in the root zone of the soil and the quality of the applied water. Water quality of the Missouri River tributaries, would probably result in chemical build-up in most soils. This would require application of water for leaching. The amount of water required for leaching has not been determined since the determination depends on both the irrigation water and the soil. However, it is important to recognize that leaching water in small amounts (2 to 3 inches) will be required from irrigation.

3.6 TOTAL ALFALFA IRRIGATION REQUIREMENTS IN CROP ROOT ZONE

Alfalfa irrigation water requirements are summarized for each reservation in Table 3-7. The alfalfa irrigation requirement is water that must be made available in the root zone of an alfalfa crop to satisfy crop needs, exclusive of leaching requirements which are unknown. The values are averages. In years of low precipitation and high temperature, the water requirement will be higher; and in years of high precipitation and cooler temperatures, alfalfa water requirements will be less.

3.7 FARM IRRIGATION EFFICIENCY

The efficiency of delivery water from the edge of the irrigated area to the root zone of the crop is highly variable depending on the method of application, the crop, the terrain, and irrigation management. The two basic methods of irrigation application in the Northern Great Plains are surface irrigation and sprinkler irrigation. Surface irrigation includes contour ditches, rills, furrows, spreader systems and border dikes. Sprinkler irrigation includes center pivot, hand-move, and side-roll systems.

3.7.1 Surface Irrigation Efficiency

Surface irrigation methods are generally 40 to 60 per cent efficient depending on the type of surface irrigation, the slope of the irrigated land, and soil characteristics. Table 3-8 summarizes surface irrigation efficiencies for a variety of methods in use in the Northern Great Plains. Data in the table are based on conditions of good irrigation management.

TABLE 3-7

SUMMARY OF IRRIGATION WATER REQUIREMENT FOR ALFALFA ON UNITED SIOUX INDIAN RESERVATIONS, (INCHES PER YEAR)

RESERVATION	MAY-SEPT MODIFIED BLANEY-CRIDDLE EVAPOTRANSPIRATION	RECOMMENDED EVAPOTRANSPIRATION	MAY-SEPT EFFECTIVE PRECIPITATION	INITIAL SOIL MOISTURE DEFICIT	MAY-SEPT IRRIGATION REQUIREMENT
Standing Rock	28.10	35.12	-9.57	2.00	27.55
Lower Brule	31.10	38.90	-9.63	2.00	31.27
Devils Lake	25.65	32.06	-9.07	2.00	24.99
Flandreau	28.89	36.11	-11.96	2.00	26.15
Rosebud	32.06	40.08	-11.33	2.00	30.75
Santee	32.27	40.34	-12.71	2.00	29.63
Crow Creek	31.12	38.90	-9.63	2.00	31.27
Pine Ridge	29.13	36.41	-9.85	2.00	28.56
Cheyenne	29.42	36.78	-8.34	2.00	30.44
Sisseton	28.87	36.09	-11.18	2.00	26.91
Yankton	32.27	40.34	-12.71	2.00	29.63

TABLE 3-8

RECOMMENDED FARM IRRIGATION EFFICIENCIES FOR SURFACE IRRIGATION APPLICATION (1)

Application System	Slope,%	Efficiency, % Favorable Soils	Midrange Soils	Unfavorable Soils
Level Border	0.00	90	70	50
Graded Border	0.05	80	70	50
	1.00	65	60	55
	5.00	60	55	50
Furrow	.1	70	70	70
	1.0	65	65	65
	1.5	60	60	60
Contour Ditch	.5-1.0	60	55	45
	1.0-4.0	55	50	40
	4.0-12.0	45	40	35

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(1) Data interpreted from (Soil Conservation Service, 1974, pp. 5-10 to 5-13).

Border irrigation is the most efficient means of surface irrigation under favorable soil conditions, and efficiencies of 70 per cent can be achieved under midrange soil conditions. Irrigation by contour ditch is the most common means of surface irrigation for hay crops. Efficiencies range from 35 to 60 per cent depending mainly on the slope of the irrigation area. An efficiency of 50 per cent is a reasonable expectation for irrigation by contour ditch for most soils, for moderate slope and for close management of the irrigation set times.

3.7.2 Sprinkler Irrigation Efficiency

Sprinkler irrigation efficiency is infuenced principally by wind and spray evaporation losses, non-uniform sprinkler distribution and management of the irrigation set times to match soil water requirements.

Wind and spray evaporation losses were investigated by researchers in Arizona, (Frost, K.E. and Schwalen, H.C., August 1955). It was found that wind and spray evaporation losses are dependent on a variety of factors as listed below:

(1) relative humidity
(2) Air tem, °F
(3) sprinkler nozzle diameter
(4) sprinkler nozzle pressure
(5) wind velocity

using the method of Frost and Schwalen for the United Sioux reservations, it was determined that wind and spray losses would range from 3% to 8% depending on conditions. An average wind and spray evaporation of 5% was considered reasonable.

Wind and spray evaporation losses take place between the sprinkler nozzle and the ground surface. The droplets of water are evaporated and consumed. Wind and spray losses are a necessary and unavoidable inefficiency of sprinkler irrigation systems, but water lost contributes to non-beneficial consumptive use. The efficiency of sprinkler irrigation from the nozzle to the ground is 95% for average conditions expected in the Northern Great Plains.

Under ideal conditions, sprinkler precipitation is not uniform in its pattern. Non-uniform sprinkler irrigation results in water deficiencies in some areas and surplus water in other areas of the field. If the irrigation set time is lengthened to increase the water supplied to areas of deficit, excess water is applied to areas that have received an adequate water supply. Excess water in those areas is driven below the crop root zone, (assuming a barrier to downward percolation does not exist).

Previous researchers (Hart, William E. and Reynolds, William N., 1965), have developed methods for relating the percentage of an area adequately irrigated with sprinklers to irrigation set times and irrigation efficiency. The application of the methodology requires knowledge of characteristics of the sprinkler nozzle, wind conditions in the area, and the spacing of nozzles in the field. Manufacturers of sprinklers have developed a characteristic known as the uniformity coefficient which serves as an index of the consistency of sprinkler application for various equipment and field conditions. Hart and Reynolds utilized the uniformity coefficient in deriving their relationship for sprinkler efficiency.

For sprinkler equipment with moderately good performance the relationships between set time and non-uniform sprinkler efficiency are demonstrated for various average applications in Table 3-9.

Table 3-9 shows that non-uniform sprinkler efficiency decreases as the percentage of the area receiving adequate irrigation increases. For example, with an average application of 1.8 inches, a set time of 9.41 hours provides the required water supply to 70 per cent of the area under sprinkler and the irrigation efficiency is 82 per cent. However, to supply adequate water over 95 per cent of the area, a set time of 13.91 hours is required, and non-uniform sprinkler efficiency drops to 58%.

TABLE 3-9

NON-UNIFORM SPRINKLER EFFICIENCY CORRESPONDING TO IRRIGATION SET TIMES FOR THREE LEVELS OF AVERAGE IRRIGATION APPLICATION (1)

Percent Area Adequately Irrigated	Irrigation Set Time (Hours)			Non-Uniform Sprinkler Efficiency
	Average Sprinkler Application (Inches)			
	1.8	3.0	4.0	%
95	13.91	23.20	30.95	58
90	12.05	20.09	26.80	67
85	11.04	18.43	24.59	72
80	10.37	17.29	23.07	76
75	9.84	16.41	21.90	79
70	9.41	15.70	20.94	82

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(1) Based on methodology of Hart and Williams and sprinkler rate of .22 inches per hour.

Management of irrigation set times is largely a balancing of practical considerations with soil conditions. Due to labor requirements irrigation set times of twelve and twenty-four hours are often used. Occasionally eight hour sets are practical in soils with low water holding capacity. From Table 3-9 selection of practical set times would vary depending on the irrigation requirements for a particular soil. For 1.8 inches of irrigation, a twelve hour set would be practical resulting in a non-uniform sprinkler efficiency of 67 per cent. For 4.0 inches of irrigation, a twenty-four hour set would be practical resulting in a non-uniform sprinkler efficiency of 72 per cent.

Often several soil units occur within a sprinkler unit, and set times are adapted to satisfy irrigation requirements for the predominant soil type. Non-uniform irrigation efficiency of the unit is reduced depending on the proportion of soils with water holding capacities less than the predominant soil group and depending on the variance of moisture holding capacities between soil types.

While non-uniform sprinkler efficiencies of 80 per cent and higher are possible if irrigation equipment is properly selected, irrigation set times are carefully selected and practiced, and soil conditions are not variable, application efficiency of 70 per cent is considered reasonable for good management conditions.

Net sprinkler irrigation efficiency is the product of wind and spray efficiency (95%) and non-uniform sprinkler efficiency for practical management (70%). Net sprinkler irrigation efficiency of 66 per cent is in reasonable agreement with Soil Conservation Service recommendations of 65 to 70 per cent (Soil Conservation Service, 1974, p. 5-9).

The discussion of sprinkler efficiency relates to hand-move and side-roll systems which require manual changing of the irrigation system. Center pivot irrigation systems, which operate automatically and continuously, are slightly more efficient. Net sprinkler irrigation efficiency for center pivot systems of 70 to 75 per cent is considered reasonable.

3.8 DELIVERY SYSTEM EFFICIENCY

Efficiency of the delivery system, from the source of supply to the farm irrigation system, is dependent primarily on the design of the conveyance system and the distance from the diversion point to the farm. Conveyance systems are constructed as unlined earthen canal, lined canals or pipelines. Unlined canals are the least costly and the most inefficient; pipelines are the most costly and the least inefficient.

In both lined and unlined canals, losses leading to inefficiencies are principally attributed to seepage through the bottom of the canal. Evaporation from the water surface and evapotranspiration from riparian vegetation is generally small in comparison to seepage losses. Evaporation and seepage losses in pipelines are usually negligible.

Delivery efficiencies may range from 50 per cent to 90 per cent. Examples of delivery efficiencies on existing projects occasionally have less than 50 per cent efficiency. Occasionally efficiencies exceed 90 per cent on projects of several thousand acres or more. An 80 per cent delivery efficiency is recommended for determination of irrigation diversion requirements for the United Sioux Indian reservations.

3.9 IRRIGATION DIVERSION REQUIREMENT

This section summarizes the results of investigations described in sections 3.3 through 3.8, each treating separate considerations in the determination of irrigation diversion requirements. Tables 3-10 and 3-11 summarize the determinations of irrigation diversion requirements for sprinkler irrigation and surface irrigation respectively.

As defined in Section 3.2.3, irrigation diversion requirements are determined by the following equation:

$$IDR = \frac{(PET - EP + SI + L)\,A}{(FE)\,(CE)}$$

Where

IDR = Irrigation diversion requirement
PET = Potential crop evapotranspiration
EP = Effective precipitation
A = Project acreage
FE = Farm irrigation efficiency
CE = Conveyance efficiency
SI = Initial soil moisture deficit
L = Leaching requirement

TABLE 3-10

SUMMARY OF IRRIGATION DIVERSION REQUIREMENTS
FOR SPRINKLER APPLICATION
UNITED SIOUX INDIAN RESERVATIONS
(INCHES, MAY-SEP)

RESERVATION	ALFALFA IRRIGATION REQUIREMENT(1)	SPRINKLER IRRIGATION EFFICIENCY(2)	DELIVERY SYSTEM EFFICIENCY(3)	IRRIGATION DIVERSION REQUIREMENT(4)
Standing Rock	27.55	.66	.80	52.18
Lower Brule	31.27	"	"	59.22
Devils Lake	24.99	"	"	47.33
Flandreau	26.15	"	"	49.53
Rosebud	30.75	"	"	58.24
Santee	29.63	"	"	56.12
Crow Creek	31.27	"	"	59.22
Pine Ridge	28.56	"	"	54.09
Cheyenne	30.44	"	"	57.65
Sisseton	26.91	"	"	50.97
Yankton	29.63	.66	.80	56.12

(1) Water requirement in crop root zone
(2) Reflects water losses from edge of field to crop root zone
(3) Reflects water losses from point of diversion to edge of field
(4) Water requirement at point of diversion to satisfy crop water requirement in root zone

TABLE 3-11

SUMMARY OF IRRIGATION DIVERSION REQUIREMENTS
FOR SURFACE APPLICATION
UNITED SIOUX INDIAN RESERVATIONS
(INCHES, MAY-SEP)

RESERVATION	ALFALFA IRRIGATION REQUIREMENT(1)	SPRINKLER IRRIGATION EFFICIENCY(2)	DELIVERY SYSTEM EFFICIENCY(3)	IRRIGATION DIVERSION REQUIREMENT(4)
Standing Rock	27.55	.50	.80	68.88
Lower Brule	31.27	"	"	78.18
Devils Lake	24.99	"	"	62.48
Flandreau	26.15	"	"	65.38
Rosebud	30.75	"	"	76.88
Santee	29.63	"	"	74.08
Crow Creek	31.27	"	"	78.18
Pine Ridge	28.56	"	"	71.40
Cheyenne	30.44	"	"	76.10
Sisseton	26.91	"	"	67.28
Yankton	29.63	.50	.80	74.08

3.10 ADDITIONAL CONSIDERATIONS

For sprinkler irrigation Table 3-12 summarizes selected components of the total diversion requirement. Potential return flow, which is listed in the last column of Table 3-12, was calculated as the difference between total diversion requirement and total consumptive use. Depending on the quantity of water captured by non-tributary geologic formations, not all potential return-flow will actually return to the original source of supply, and the total depletion will be increased accordingly.

TABLE 3-12

SUMMARY OF CONSUMPTIVE USE AND
POTENTIAL RETURN FLOW ESTIMATES
UNITED SIOUX INDIAN RESERVATIONS
(SPRINKLER IRRIGATION, MAY-SEP, INCHES)

RESERVATION	BENEFICIAL CONSUMPTIVE USE	NON-BENEFICIAL CONSUMPTIVE USE(1)	TOTAL CONSUMPTIVE USE(2)	POTENTIAL RETURN FLOW(3)
Standing Rock	27.35	1.45	29.00	23.18
Lower Brule	31.27	1.65	32.92	26.30
Devils Lake	24.99	1.32	26.31	21.02
Flandreau	26.15	1.38	27.53	22.00
Rosebud	30.75	1.62	32.37	34.87
Santee	29.63	1.56	31.19	24.93
Crow Creek	31.27	1.65	32.92	26.30
Pine Ridge	28.56	1.50	30.06	24.03
Cheyenne	30.44	1.60	32.04	25.61
Sisseton	26.91	1.42	28.33	22.64
Yankton	29.63	1.56	31.19	24.93

(1) Wind and spray evaporation equal to 5% of delivery to field.
(2) Sum of beneficial and non-beneficial consumptive use.
(3) Difference between total diversion (Table 3-10) and total consumptive use.

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CHAPTER 4

ADDITIONAL WATER REQUIREMENTS

The previous chapter on irrigation water requirements was written in substantial detail. Since irrigation water requirements have been used as a measure of Indian water rights and since the magnitude of irrigation water requirements is substantial when compared with most other uses, special attention was given to that subject. This brief chapter is presented primarily to recognize the relative measure of water requirements for purposes other than irrigation. Consideration was given to water requirements for municipal livestock, coal, and hydropower water requirements.

General guides for determining those water requirements are provided, but in the absence of knowledge of future human population, livestock population, mineral development and other future conditions, total water requirements by reservation were not developed. It was felt that development of total water requirements for the future related to these purposes is highly speculative and conjuctural.

4.1 MUNICIPAL AND RURAL WATER REQUIREMENTS

The Missouri River Basin Comprehensive Framework Study presents per capita water requirements for municipal and rural purposes as summarized in Table 4-1.

TABLE 4-1
MUNICIPAL AND RURAL DOMESTIC UNIT WATER REQUIREMENTS

LOCATION	GALLONS PER CAPITA PER DAY
Communities of 2,500 to 10,000 Population	
East of Precipitation Effectiveness Index Line	125
West of Precipitation Effectiveness Index Line	150
Communities of Less than 2,500 Population	
East of Precipitation Effectiveness Index Line	80
West of Precipitation Effectiveness Index Line	120
Rural Homes	
With pressurized Systems	50
Without Pressurized Systems	10

Source: MBI-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, p. 121.

In the absence of knowledge of future conditions, Table 4-2 was prepared to indicate the potential magnitude of future water requirements for municipal and rural purposes. As shown in Table 4-2, annual requirements would exceed 100,000 acre-feet per year for a population of 500,000 people and per capita requirements of 200 gallons per day.

TABLE 4-2
ANNUAL MUNICIPAL AND RURAL WATER
REQUIREMENTS FOR VARIOUS FUTURE CONDITIONS
(ACRE-FEET)

	Gallons Per Capita Per Day		
POPULATION	50	100	200
50,000	2,800	5,600	11,200
100,000	5,600	11,200	22,400
500,000	28,000	56,000	112,000

4.2 LIVESTOCK WATER REQUIREMENTS

The Comprehensive Framework Study gives per capita requirements for livestock as shown in Table 4-3.

TABLE 4-3
LIVESTOCK UNIT WATER REQUIREMENTS

Livestock	Water Supply Requirement per Head (Gallons per Day)
Milk Cows	30.0
Beef Cattle	12.0
Hogs	4.0
Sheep	1.8
Turkeys	0.18
Chickens	0.06

Source: MBI-AC, June 1969, Volume 6, Hydrologic Analyses & Projections, p. 122.

Table 4-4 summarizes livestock water requirements for a range of purely hypothetical conditions.

TABLE 4-4

ANNUAL LIVESTOCK WATER REQUIREMENTS FOR VARIOUS HYPOTHETICAL CONDITIONS (ACRE-FEET)

POPULATION (1)	5	15	30
100,000	560	1,680	3,360
500,000	2,800	8,400	16,800
1,000,000	5,600	16,800	33,600

4.3 COAL WATER REQUIREMENTS

The potential for coal and other mineral development on the United Sioux Indian Reservation was not investigated in the study reported here. South Dakota and particularly North Dakota are known to have extensive lignite coal resources, (Brobst, Donald A. and Pratt, Walden P, 1973, p. 137). However, the extent of this resource on Indian land is unknown.

The USBR used generalized water requirements of 15,000 acre-feet per year per 1000 megawatt steam electric plant in its draft environmental impact statement on water marketing (USBR, October 1976, p. 3-19). Hypothetically, ten plants of 1000 megawatt capacity would require 150,000 acre-feet per year. Table 4-5 lists additional water requirements associated with potential coal development from the USBR.

4.4 HYDROPOWER WATER REQUIREMENTS

Some future irrigation in the Missouri River Basin on the United Sioux Indian Reservations will require pumping from surface water and ground water sources, irrespective of the method of irrigation. The development of hydropower for the production of energy for pumping is a reasonable undertaking. Water requirements for hydropower to provide full energy requirements for irrigation pumping are summarized in Table 4-6.

TABLE 4-5
COAL RESOURCE UNIT REQUIREMENTS

		Annual Resource Requirements	
Process or Use	Output	Coal (million tons)	Water (acre-feet/year)
Coal gasification			
Synthetic natural gas[1]	250 MCFD*	8	10,000
Anhydrous ammonia[2]	2000 tons/day	4	13,000
Coal-fired steam Electric plant[3]	1000 megawatts	6	15,000
Coal slurry pipeline	NA	1	700
Coal mine[4]	1 million tons	1	100

---

* Millions of cubic feet/day.

NA = Not available.

SOURCES:
1. Northern Great Plains Resource Program, Effects of Coal Development in the Northern Great Plains, April 1975.
2. The M.W. Kellogg Company, Preliminary Engineering Study and Conceptual Plant Design for Circle West Project of Dreyer Bros., Inc., February 1976.
3. Northern Great Plains Resource Program, Atmospheric Aspects Work Group Report, discussion Draft, December 1974.
4. State Department of Economic Planning and Development, Wyoming, Coal and Uranium Development of the Powder River Basin Impact Analysis, June 1974.

FROM: (USBR, October 1976, p. 1-11).

TABLE 4-6
WATER REQUIREMENTS FOR HYDROPOWER TO SUPPORT IRRIGATION PUMPING (ACRE-FEET PER YEAR)

ACRES	Pump LIFTS (FT)	HYDROPOWER GENERATION HEAD (FT) 100	200	300
2200	50	4,882	2,441	1,627
22000	100	97,656	48,828	32,552
220,000	200	1,953,125	976,562	651,042

As the table 4-6 demonstrates small acreages with small pumping lifts require small flows for hydropower generation, 1500 to 5000 acre-feet per year depending on available head. Water requirements for larger acreages and larger pump lifts increase substantially. For 220,000 acres requiring 200 feet of pumping, the annual hydropower requirement would range from 650,000 acre-feet to nearly 2,000,000 acre-feet, depending on generating head.

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CHAPTER 5

PICK-SLOAN MISSOURI RIVER BASIN PLAN

5.1 GENERAL

The completed Missouri River Main Stem Reservoir System, together with federally constructed and authorized tributary diversions and reservoirs, constitute the Missouri River Basin Development Plan first authorized by the U.S. Congress in 1944 (Ridgeway, 1955). Accordingly, water required for the various projects is viewed by federal agencies as a federal reservation of Missouri River water sufficient to satisfy all uses contemplated in the original Basin Development Plan. In view of the June, 1978 Presidential Water Policy, it is likely that the Missouri River Basin states will have primary control of decisions to complete the unfinished components of the plan.

The 1944 Flood Control Act authorized a comprehensive basin-wide development program on a larger scale than Congress had ever previously considered (MBIAC, 1969, p. 221). The plan for development was a compromise between two separate development schemes developed by the Corps of Engineers and the Bureau of Reclamation. The Corps plan, commonly termed the "Pick Plan" after its principal author, Colonel Lewis Pick, emphasized flood control and navigation as primary development objectives. The Bureau of Reclamation plan was termed the "Sloan Plan" after the principal developer, engineer William G. Sloan, and it emphasized irrigation water supply as a primary development goal. As a result of the differing project objectives, the two plans called for a different number of reservoirs of different sizes and at different locations. Thus, the Pick Plan required a total of 22 reservoirs in the entire basin, including five on the main stem. Also included in the Pick Plan were 1500 miles of levees and other channel improvements from Sioux City, Iowa downstream to the mouth. The Sloan Plan called for a total of 90 reservoirs, including three on the main stem. The Sloan Plan also included a large diversion of Missouri River water to the Souris Basin in North Dakota, and new irrigation of almost five million acres (Terral, 1947).

Congressional hearings on the merits of the two competing basin plans were held throughout the summer of 1944. As might be expected, both the Corps and Bureau argued for their own particular proposals and attacked the proposal advanced by the other agency. Thus, the Corps took particular issue with the Souris diversion contained in the Sloan Plan. The Corps stated that it was questionably advisable to develop "...a large-scale irrigation project outside the Missouri River Basin" since such a project would require a large water supply before the "...existing and foreseeable needs for the conservation and use of water within the Missouri River Basin..." could be satisfied (Ridgeway, 1955, p. 87).

For its part, the Bureau opposed the inclusion of Garrison and Gavins Point dams in the development plan. In Senate hearings, W.G. Sloan observed:

> "Garrison Dam was omitted (from the Sloan Plan) because it would only increase the flow for navigation at Sioux City by 800 second-feet, and was therefore not worth the expenditure of $170,000,000. ...Gavins Point Dam was omitted because it was a very expensive dam for the benefits it would yield." (Ridgeway, 1955, p. 147)

Congress ultimately resolved the conflict between the Pick and Sloan proposals by bowing to the demands of each. As one observer noted: "Every project in both plans was incorporated into the joint venture except the Army's proposed Oak Creek Dam in South Dakota, and it would have been included too if its site were not to be submerged by another dam in the joint plan." (Terral, 1947, p. 230).

The compromise plan, now known as the "Pick-Sloan Plan", became law on December 22, 1944 and was based on the following principals:

(1) The Corps of Engineers should have the responsibility for determining main stem reservoir capacities and capacities of tributary reservoirs for flood control and navigation.

(2) The Bureau of Reclamation should have the responsibility for determining reservoir capacities for irrigation, the probable extent of future irrigation, and the amount of stream depletion due to irrigation development.

(3) Both agencies recognize the importance of hydropower generation and will emphasize its development consistent with other project objectives.

(4) Consumptive uses west of the 98th meridian shall have priority over navigation on the main stem of the Missouri River.

The primary elements of the Pick-Sloan Plan included the following (Golze, 1961):

(1) Construction of five main stem reservoirs with a total storage capacity of about 42 million acre-feet,

(2) Eventual construction of about 90 tributary reservoirs to provide full service irrigation to about 4,765,000 acres (subsequently increased to 5,300,000 acres in a 1950 report),

(3) The installation of over 1,100,000 kilowatts of power generation capacity,

(4) The construction of levees and channel improvements from Sioux City to the mouth, and

(5) The Missouri-Souris diversion.

To provide administrative control over the joint venture envisaged in the Pick-Sloan Plan, the Missouri River Basin Inter-Agency Committee (MBIAC) was created by resolution of the Federal Inter-Agency River Basin Committee in 1945 (Ridgeway, 1955, p. 281). This committee was composed of representatives of the Departments of War, Agriculture, Interior, Federal Power Commission and the Department of Commerce and the governors of five of the Missouri Basin States. Direct Indian representation was not provided.

During the Congressional hearings held on the Pick and Sloan Plans in 1944, a considerable amount of discussion centered on the available flow in the Missouri River and the amount needed for the various project proposals. Proponents of irrigation argued that full-service navigation would preclude any of the additional irrigation proposed by the Bureau of Reclamation based on the 1929-1942 flow record. Navigation proponents argued that full-service navigation flows were required for only eight months of the year and that the 1929-1942 flow period was a severe drought period and thus not truly indicative of the long-term average flow (Terral, 1947, pp. 122-123).

The controversy was muted by the compromise Pick-Sloan Plan with its additional main stem storage and by adding the section of the Act that forbade the use of water west of the 98th meridian for navigation until other needs had been satisfied.

The discussions and controversy did, nevertheless, serve to point out that water in the Missouri Basin is a scarce commodity and that there might not be enough to satisfy all potential needs or legal claims.

Because of the uncertainty surrounding flow availability and project requirements at the time the Pick-Sloan Plan was formulated, subsequent studies were undertaken by MBIAC to update flow estimates. The first was prepared in 1951 (U.S. Senate Committee on Interior and Insular Affairs, 1975, p. 5) and showed Pick-Sloan Plan authorized depletions through the year 2000 to be about 8.5 million acre-feet per year above Sioux City. Latest estimates (Bureau of Reclamation, 1976, p. 1-3) indicate total Pick-Sloan Plan authorized depletions to be about 7.0 million acre-feet per year through 1970. A total annual depletion level of about 13.5 million acre-feet in 2060 is estimated above Sioux City, Iowa.

5.2 1944 FLOOD CONTROL ACT.

The 1944 Flood Act provided "approval" of the Pick-Sloan Plan and "authorization of the initial stages". It also provided that irrigation of Indian lands was intended:

> "Sec. 9. (a) The general comprehensive plans set forth in House Document 475 and Senate Document 191, Seventy-eighth Congress, second session, as revised and coordinated by Senate Document 247, Seventy-eighth Congress, second session, are hereby approved and the initial stages recommended are hereby authorized and shall be prosecuted by the War Department and the Department of the Interior

> as speedily as may be consistent with budgetary requirements.
>
> (b) The general comprehensive plan for flood control and other purposes in the Missouri River Basin approved by the Act of June 18, 1938, as modified by subsequent Acts, is hereby expanded to include the works referred to in paragraph (a) to be undertaken by the War Department; and said expanded plan shall be prosecuted under the direction of the Secretary of War and supervision of the Chief of Engineers.
>
> (c) Subject to the basin-wide findings and recommendations regarding the benefits, the allocations of costs and the repayments by water users, made in said House and Senate documents, the reclamation and power developments to be undertaken by the Secretary of the Interior under said plans shall be governed by the Federal Reclamation Laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto), except that irrigation of Indian trust and tribal lands, and repayment therefore, shall be in accordance with the laws relating to Indian lands." (58 Stat. 887)

5.3 FEATURES OF PICK-SLOAN PLAN RELEVANT TO UNITED SIOUX INDIAN RESERVATIONS.

The Bureau of Reclamation contribution to the Pick-Sloan Plan (Senate Document 191) as coordinated by Senate Document 247, in error, did not distinguish between federal and Indian water rights. Nevertheless, several components of the plan as outlined in Document no. 191, included irrigation developments on lands of the United Sioux Tribes. Apparently, irrespective of the title to the water which is held by the United Sioux Tribes for irrigable lands within their reservation, the Bureau of Reclamation considered some Indian lands worthy of inclusion in the Pick-Sloan Plan. While Reclamation did not consider the prior and paramount rights of the tribes, it is significant that the agency regarded the resources potential as sufficient for inclusion in the Missouri River Basin Development Plan.

This section reviews those components of the Bureau of Reclamation Plan (Senate Document 191) that relate to the United Sioux Indian Reservations.

5.3.1 Standing Rock Indian Reservation.

The following summarizes the plan for development of the Cannonball River and Cedar Creek. The developments have not been undertaken:

> "In the southwest part of North Dakota, 17,750 acres of land in the Cannonball River Basin will be irrigated by the construction of the Thunderhawk Reservoir on Cedar River, one of the principal tributaries of the Cannonball. This reservoir will have a capacity of 30,000 acre-feet, and will furnish a regulated supply for 8,000 acres of individual tracts along this southern tributary of the Cannonball. Pumping plants will be required for 49 small individual areas in the basin. On the main Cannonball, a reservoir of 40,000 acre-foot capacity will serve 9,700 acres of land scattered throughout the main river basin, from the reservoir to the mouth of the river." (Senate Document 191, p. 75)

Similarly, development on the Grand River was proposed but only Shadehill Reservoir, upstream from the reservation, was developed, and non-Indians are the only beneficiaries:

> "Although 66,600 acres of land in the Grand River Basin in South Dakota was found to be adapted to irrigation, full regulation of the water supply will permit the development of only 28,500 acres, which will be accomplished by creating the Shadehill Reservoir of a capacity of 134,000 acre-feet, and by serving 13,000 acres by a gravity canal diverting from the river at the reservoir. Return flow from land irrigated with water from this reservoir will be picked up in the Blue Horse Reservoir some 28 miles downstream, where a capacity of 50,000 acre-feet will be provided to serve 16,500 acres of land in 46 small pumping units, ranging from 85 to 1,285 acres each. Much of the land below the Blue Horse Reservoir is within the Standing Rock Indian Reservation, and is owned by Indians, while practically all of the land above the Blue Horse Reservoir is in private white ownership." (Senate Document 191, p. 76)

5.3.2 Cheyenne River Indian Reservation.

On the Moreau River and Cheyenne River, the following developments were proposed:

> "Construction of the Oahe Reservoir on the Missouri River will inundate the lower Moreau River Basin in South Dakota for a distance of 12 miles. The most practical plan of developing the irrigable areas in the basin was found to be the construction of Bixby Reservoir of a capacity of 90,000 acre-feet, which will furnish an adequate water supply for 27,150 acres of land scattered in small tracts throughout the basin, from the Bixby Reservoir to the backwaters of Oahe Reservoir. Power for pumping on these small projects will be obtained from the proposed plant at Oahe.
>
> The Cheyenne River is the largest tributary of the Missouri in South Dakota. The Bureau of Reclamation has already developed the Belle Fourche project on the Belle Fourche River, the northern tributary of the main Cheyenne, and private developments have added another 12,000 to 15,000 acres along tributaries of the Belle Fourche River, adjacent to the Black Hills. The Rapid Valley project is now under construction by the Bureau of Reclamation, and after the 16,000 acre-foot Deerfield Reservoir and one additional reservoir yet to be selected have been constructed, a supplemental water supply for 12,000 acres in the Rapid Creek Valley will be furnished. The Belle Fourche project was originally planned for approximately 80,000 acres, but run-off during the past 12 years has proved to be an inadequate supply for so large an acreage. By the construction of the Keyhole Reservoir of 276,000 acre-foot capacity, the water supply for the Belle Fourche project will be so stabilized as

> to permit its final acreage to be mantained at approximately 45,000 acres. One other reclamation project has been authorized, namely, the Angostura project in the southwest part of the Cheyenne River watershed, where, by the construction of Angostura Reservoir with a capacity of 160,000 acre-feet, water can be supplied by gravity to a 16,000-acre project in the vicinity of Hot Springs, S. Dakota, and to 25,300 acres in 49 scattered pumping units along the lower reaches of the river, and 5,030 acres along the lower Belle Fourche River. A reservoir of 45,000 acre-foot capacity on Beaver Creek, in Wyoming, will furnish a water supply for 8,000 acres in the Edgemont project along the Cheyenne River, all of which lies in South Dakota above the Angostura project." (Senate Document 191, p.76)

Development of the Moreau River was not implemented. The Belle Fourche and Rapid Valley Projects on the headwaters of the Cheyenne River above the reservation were implemented prior to the 1944 Flood Control Act, and the Angostura Unit, also above the reservation was implemented after the Act. The Belle Fourche Pumping Unit, upstream from the reservation, and the Cheyenne River Pumping Unit, both upstream from and within the reservation, have not been initiated.

5.3.3 Pine Ridge and Rosebud Indian Reservations.

On the White River the following development was proposed:

> "White River rises in low hills of western Nebraska, and flows northeastward into South Dakota, to a confluence with the Missouri River about 15 miles downstream from Chamberlain, S. Dakota. All of the water resources of the White River arising in Nebraska have already been utilized by the Whitney irrigation district, an area of some 10,000 acres, served by an inland reservoir of 15,000 acre-foot capacity. A supply canal for this reservoir diverts a spring flow in the White River, which is remarkably uniform throughout the year. In South Dakota, the remaining watershed produces an exceedingly erratic run-off, with high discharges from summer rainstorms, which fall on the prairie area and on a large area of shale badlands that produce quick and heavily silt-laden run-off. A reservoir of 70,000 acre-foot capacity at the Rocky Ford site, about 25 miles upstream from the town of Interior, will furnish an adequate water supply for 42,000 acres of small units, scattered from the reservoir site to the mouth of the river, all of which must be served by pumps. Power to operate the pumps will be imported into the basin. The available water supply will serve less than half of the total area of land in the basin which is adapted to irrigation." (Senate Document 191, p. 77)

The Whitney Irrigation District utilizes the "uniform" or dependable flow of the White River, as stated above and a reservoir would be required to store the "exceedingly erratic" flows within and adjacent to the Pine

Ridge and Rosebud reservations. The storage development has not been undertaken, and the irrigation project downstream from the Rocky Ford Reservoir site has not been undertaken.

5.3.4 Lower Brule, Crow Creek and Yankton Indian Reservations

Pumping projects along the Missouri River mainstem were incorporated in the Pick-Sloan Plan. As the citation below indicates, power was to be supplied from the mainstem power plants:

> "A series of pumping plants, extending from Fort Peck down the river as far as Sanish, N. Dakota, was described above. These pumping plants will be served with electrical power for pumping from the Fort Peck power plant. An additional series of 18 pumping plants in North Dakota, extending from Sanish to the South Dakota line and serving a total of 84,740 acres, can be operated with energy generated in the power plants at the proposed dams in South Dakota. Another series of pumping plants along the Missouri will serve 54,720 acres of land, in 18 units distributed between the northern boundary of South Dakota and Yankton, S. Dakota. These individual units are listed below." (Senate Document 191, p. 117)

The following is a list of pumping projects identified in South Dakota along the Missouri River:

	Area (acres)
" Chantier	570
Oahe	1,850
La Franboise	1,050
Pierre	900
Vosseau	3,310
LaRoche	2,720
Joe Creek	6,560
Red Cloud	1,850
Culdesac	5,660
Big Bend	8,520
Fort Thompson	7,710
Fort Hale	2,100
Grosse	650
Fort Randall	900
Tower	2,130
Greenwood	4,210
Running Water	1,640
Yankton	2,390
Total	54,720 "

(Senate Document 191, p. 117)

The LaRoche, Red Cloud, Big Bend and Fort Hale units are within the Lower Brule Reservation boundaries and from the list above, constitute 15,190 acres. The Joe Creek, Culdesac and Fort Thompson units lie within the Crow Creek Reservation and constitute 19,930 acres. The Tower and Greenwood units, 4,340 acres, are within the Yankton Reservation. Of the 54,720 acres, 39,460 acres or 72% were proposed for three of the United Sioux Indian Reservations. Development of the pumping units has not been initiated, although the Bureau of Reclamation has recently constructed a pumping unit to serve about 10,000 acres near Polluck, South Dakota, across the Missouri River from the Standing Rock Indian Reservation (USBR, December 13, 1978).

5.3.5 Flandreau, Sisseton, Fort Totten and Santee Reservations.

The Pick-Sloan did not identify irrigation projects within the boundaries of the balance of the United Sioux Indian Reservations. However, it was proposed that water would be delivered from the Missouri River to restore Devils Lake and for irrigation of 55,000 acres in the New Rockford Unit, immediately south of the James River and the Fort Totten boundary, and for other purposes (Senate Document 191, pp. 113 and 114). Approximately 25 miles west of the Sisseton Reservation in North Dakota and South Dakota, the Oakes Unit was to irrigate 31,000 acres along the James River, (Senate Document No. 191, p. 114).

The Running Water Pumping Unit (see list of pumping units in Section 5.3.4) was proposed immediately across the Missouri River from the Santee Reservation, but no lands within the reservation were included in the plan. There were no irrigation projects lands proposed in the vicinity of the Flandreau Reservation.

5.4 SUMMARY

The Pick-Sloan Plan is the principal basis for a federal reservation of water in the Missouri River Basin. As discussed in Chapter 2, the Bureau of Reclamation relies on surplus water from future U.S. Bureau of Reclamation irrigation units between the years 1980 and 2030 to make water available "for energy related industrial purposes up to 1.0 million acre-feet annually from mainstem Missouri River reservoirs". (USBR, October 1976, p. i)

While the Pick-Sloan Plan, in error, does not distinguish between federal and Indian water rights, the plan identified areas of proposed irrigation projects within seven United Sioux Indian Reservations as listed in Table 5-1.

TABLE 5-1

IRRIGATION ACREAGE OF PICK-SLOAN PLAN WITHIN UNITED SIOUX INDIAN RESERVATIONS

RESERVATION	ACREAGE
Standing Rock	25,850 (1)
Cheyenne River	25,663 (2)
Lower Brule	15,190 (3)
Crow Creek	19,930 (4)
Pine Ridge-Rosebud	21,000 (5)
Yankton	4,340 (6)
TOTAL	111,973

(1) Senate Document No. 191, p. 76, below Blue Horse Reservoir
(2) U.S. Bureau of Indian Affairs, September 1972
(3) See Section 5.3.4
(4) Ibid.
(5) Estimated at 50% of 42,000 acres adjacent to White River which forms north boundary of Pine Ridge and Rosebud Reservations.
(6) See Section 5.3.4

The acreages within the reservations are estimated in some cases. However, the total figure of 111,973 acres is representative of the size of the area proposed for irrigation within the United Sioux Indian Reservations. The Indian part of the overall development plan of the Missouri River between Fort Peck, Montana and Sioux City, Iowa, which identified new irrigation of 2,297,900 acres (see Senate Document 191, p. 117) was approved by Congress in the 1944 Flood Control Act. The only projects implemented, however, on the Missouri River tributaries of the United Sioux reservations were the Shadehill Unit upstream of Standing Rock on the Grand River and the Angostura Unit upstream of the Cheyenne River Reservation on the Cheyenne River. These projects have benefitted non-Indians. There has been no development of irrigation projects on Indian lands of the United Sioux Indian Reservations.

The error in the inclusion of surpluses from depletion estimates for "Future USBR (U.S. Bureau of Reclamation) Irrigation Units" (USBR, October 1976, pp. 1-3) within the United Sioux Indian Reservations is to fail to distinguish between federal and Indian reserved water rights. The Bureau of Reclamation, in its proposed industrial water marketing plan, apparently assumes it can market surplus water which includes water rights with title held by the Indians. A second error in the water marketing plan is the failure to include water requirements for irrigation of lands and for other beneficial purposes within the United Sioux reservations that were not identified in the Pick-Sloan Plan. (See Section 2.5)

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STATEMENT

Garrison Diversion Conservancy District Board of Directors
by Russell L. Dushinske, Chairman
House Interior and Insular Affairs
Subcommittee on Water and Power Resources
February 28, 1985

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

My name is Russell L. Dushinske of Devils Lake, North Dakota, a city known as the birthplace of the Garrison Diversion plan. This statement is presented on behalf of the Garrison Diversion Conservancy District for which I am presently serving as chairman of the board of directors.

The Conservancy District was created by the North Dakota legislature in 1955 and covers 25 counties in central and eastern North Dakota designed to receive the multiple benefits of distributing plentiful Missouri River water for municipal, rural, agricultural, industrial, wildlife, and recreation uses.

It is the legal entity to contract with the Bureau of Reclamation for development and repayment. A Master Contract has been signed by the Bureau of Reclamation and Conservancy District for this purpose as well as three-way contracts between the Bureau, Conservancy District, and four irrigation districts, plus one municipal water delivery contract. These districts are eager for delivery of the water promised 20 years ago and to enjoy its benefits.

In a policy statement adopted by the board of directors after release of the Garrison Diversion Unit Study Commission's recommendations to the Secretary of Interior, it was recommended that "the Secretary propose enabling legislation to Congress by February 15, 1985, or as soon as possible thereafter, to assure authority to implement any part of the commission plan which is determined to be beyond current authorization."

We are happy the legislative process is starting here today and urge that this committee and the full Congress give it early and favorable consideration.

However, the Conservancy District board and the state of North Dakota have some reservations about the commission and secretarial recommendations. As a result, the bill will be acceptable to us only if it has no adverse effect on the Garrison Diversion Unit authorization in the Flood Control Act of 1944 or the authorization of the 250,000-acre first phase in 1965, or does not replace them.

The Conservancy District also insists that there be no attempt to foreclose the construction of Lonetree Reservoir or the diversion of Missouri River water to the Souris and Red River watersheds, into Devils Lake, and to satisfy the requests of the state of South Dakota.

The Conservancy District and the state have agreed that utilization of Lonetree is dependent on successful consultations with Canada.

The board, in its statement, "urges the Secretary to immediately begin the process to make a formal determination concerning the need for Lonetree prior to any construction on the proposed alternative, the Sykeston Canal."

We are concerned that the project meet not only the "contemporary water needs of North Dakota," which apparently was the commission's goal, but also all future water needs. The commission's proposals should not be considered a complete answer.

The Garrison Diversion Unit was developed which took nearly 40 years of close cooperation between the state of North Dakota, through the Water Commission and Conservancy District, and the Bureau of Reclamation, plus other federal agencies. It will meet the desired objectives and continues to have a favorable benefit-cost ratio, despite rising costs due to inflation. It also is environmentally sound, meeting all the tests of the Environmental Protection Agency and the courts.

Through the decades of planning, certain modifications have been made, modernizing and improving project features. That includes conversion to sprinkler type irrigation, replacing gravity flow, thus virtually eliminating any damaging return flow problems.

A state-federal Mitigation and Enhancement Lands Commission successfully completed a Habitat Evaluation Plan, using advanced methodology, to aid in mitigating and enhancing wetlands in the project. Our board recommends continuance of the committee.

In response to accelerated demands for quality, rural, domestic, and municipal water supplies, the state has outlined an improved delivery plan which is less costly than the commission's recommended plan. This has our endorsement.

Through the years, Garrison Diversion has overcome many problems, successfully met every challenge, won every legal battle, and has emerged a strong project. The state and the Conservancy District have made considerable financial investments in the diversion project and lived up to every obligation in their contracts with the federal government.

Every year's delay costs the state about $153 million in promised returns. Delays also mean the federal investment is not generating returns.

We look forward to continued team efforts with the Bureau and other state and federal agencies and welcome any cooperation from the environmental groups to accelerate progress of this much needed project.

STATEMENT OF
MURRAY G. SAGSVEEN
SPECIAL ASSISTANT ATTORNEY GENERAL FOR THE GARRISON DIVERSION CONSERVANCY DISTRICT
to the
SUBCOMMITTEE ON WATER AND POWER RESOURCES
February 28, 1985

Chairman Miller and members of the Subcommittee:

I am Murray G. Sagsveen, a Special Assistant Attorney General for the Garrison Diversion Conservancy District and the North Dakota representative for diplomatic consultations between the United States and Canada concerning the Garrison Diversion Unit. My statement will address the status of the continuing consultations from the State's perspective.

The Government of Canada has expressed its concern, since 1969, that the Garrison Diversion Unit could violate the Boundary Waters Treaty of 1909. Article IV of the Treaty states that "waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other". The United States has continually responded with assurances that it would comply with the obligations of the Treaty. An early diplomatic note (dated February 5, 1974), for example, assured that the United States would:

> comply with its obligation to Canada not to pollute water crossing the boundary to the injury of health or property within Canada. No construction potentially affecting waters flowing into Canada will be undertaken unless it is clear that this obligation will be met.

Canada and the United States, as a result of subsequent diplomatic exchanges, referred the Garrison Diversion Unit issue to the International Joint Commission (IJC) on October 22, 1975. The IJC, in turn, established the International Garrison Diversion Study Board (IGDSB) for technical aspects of the IJC study. The IGDSB reported in January 1977 that "The Garrison Diversion Project as envisaged will have adverse impacts on water uses in Canada". The IGDSB, however, made several recommendations concerning identified problem issues.

In February 1977, at the request of Canada, the United States agreed in a diplomatic note that "a contract for the construction of Lonetree Dam will not be let until after the report to the Governments of the International Joint Commission has been received and subsequent consultations between the two governments have taken place".

The IJC, after reviewing the IGDSB report and after conducting public hearings, released its report entitled "Transboundary Implications of the Garrison Diversion Unit (dated September 16, 1977). The IJC concluded (at p. 105 of the Report) "that the construction and operation of the Garrison Diversion Unit as envisaged would cause significant injury to health and water quality and on some of the more important biological resources in Manitoba". Accordingly, the IJC recommended (at p. 121) that "those portions of the Garrison Diversion Unit which could affect waters flowing into Canada, not be built at this time". However, the IJC concluded (at p. 110) "that Lonetree Reservoir and its dams could be constructed without an unacceptable risk to Canada, if all outlet works from the Reservoir are located so as to discharge only into the Missouri River Basin and if fishing in the reservoir is forbidden".

The IJC also concluded (at p. 121) that "if and when the Governments of Canada and the United States agree that methods have been proven that will eliminate the risk of biota transfer, or if the question of biota transfer is agreed to be no longer a matter of concern, then the construction of that portion of the Garrison Diversion Unit which could affect waters flowing into Canada may be undertaken provided [certain] conditions are met". The conditions included project modifications to address the interbasin biota transfer issue, wetland habitat restoration, programs to verify the quality and quantity of return flows from the project, and appropriate bilateral agreements to compensate Canada for any mitigating measures made necessary by the Garrison Diversion Unit.

North Dakota and the Garrison Diversion Conservancy District officials responded to the IJC Report with a plan to implement the proposed modifications and to continue construction of those GDU features which could not affect waters flowing into Canada. The plan, frequently referred to as the "phased development concept", was approved by the Garrison Diversion Conservancy District Board of Directors in April 1980, the North Dakota Legislative Assembly in 1981 (Senate Concurrent Resolution 4038), and Governors Link and Olson, and was presented to Canada and the United States during diplomatic consultations in April 1981.

The phased development concept followed both the spirit and letter of the 1909 Treaty and the 1977 IJC recommendations. North Dakota has urged the phased development of the Garrison Diversion Unit so that the State could begin to enjoy the long-promised benefits of the project and so that the initial features could be used as test areas prior to final decisions concerning the ultimate development of the Garrison Diversion Unit.

The phased development concept was exhaustively analyzed by the State and the Department of the Interior after 1981. The plan was the subject of a special report by the State and the Bureau of Reclamation in May 1981. The plan was also the subject of an environmental statement entitled "Final Supplemental Environmental Statement on Features of the Garrison Diversion Unit for Initial Development of 85,000 acres" (filed with EPA on July 15, 1983). The phased development concept was substantially approved by the Department of the Interior in a "Record of Decision" dated August 23, 1983.

Diplomatic consultations continued from April 1981 through April 1984. On April 25, 1984, Canada and United States representatives approved a joint press line which stated in part:

> It was agreed that considerable progress had been made since November, 1983, in identifying and resolving specific technical concerns relating to Missouri Basin components and the Lonetree Reservoir, with the mutual objective of ensuring that no construction should proceed which would adversely affect waters flowing into Canada.
>
> In response to the report of the Technical Committee, the United States accepted the rationale for building a fish screen on the McClusky Canal to help prevent Missouri River biota from entering the Hudson Bay watershed and agreed to immediately initiate design studies leading to its construction. It was further agreed that the Technical Committee would review plans for the fish screen, as well as US plans relative to the International Joint Commission (IJC) recommendation concerning the prohibition of fishing in Lonetree Reservoir.
>
> The Consultative Group agreed, based on the report of the Technical Committee, that:
>
> --the wildlife mitigation plan is conceptually acceptable if in-kind mitigation, including a biannual report on implementation, is applied;
>
> --the design of Lonetree Dam and related works is structurally acceptable and adequate to prevent biota transfer; and
>
> --the redesign of the Municipal and Industrial (M&I) outlet plug in Lonetree Dam was found acceptable.
>
> It was agreed that Canadian concerns on these aspects had been essentially resolved.

> The Consultative Group instructed the Technical Committee to continue its studies of ongoing project design, in accordance with Canada's remaining technical concerns, and to continue monitoring the progress of construction of scheduled features. The Technical Committee was asked to report at the next meeting of the Consultative Group.
>
> The Canadian side reiterated opposition to any development of features which would affect adversely the water quality of the Hudson Bay drainage basin and Manitoba's large commercial inland fishery. Canada urged that the United States undertake a study of alternatives to proposed project features in the Hudson's Bay drainage system. The United States side noted that some such studies were already underway and agreed to support initiatives to broaden such studies.

The State and the GDCD had suggested throughout the diplomatic consultations that a fish screen should not be constructed in the McClusky Canal and that fishing should be permitted in Lonetree Reservoir. The State's position on these two issues will be explained.

The IJC concluded (at p. 109 of the final report) "that the McClusky Canal fish screen, even if modified, together with the closed system, cannot be relied upon to prevent the transfer of biota from the Missouri River to the Hudson Bay Drainage Basin". Notwithstanding design modifications of the fish screen by the Bureau of Reclamation and successful testing of a prototype adjacent to the McClusky Canal for several years, Canada has contended that the fish screen cannot be relied upon to prevent the transbasin transfer of biota. A detailed statement of Canada's position was in a diplomatic note dated October 5, 1983. The note stated, in part:

> Canada is concerned that the Final Supplemental Environmental Impact Statement (FES 83-35) reports that construction of the McClusky Canal fish screen is no longer contemplated. This would result in the movement of Missouri River fish, fish eggs, larvae and biota directly into Lonetree Reservoir, which is located within the Hudson Bay drainage basin, and to within a few meters of the Sheyenne River. Missouri River fish and biota would not only inhabit Lonetree Reservoir, but all the related supply canals, internal storage reservoirs, irrigation areas and return flow canals,

> thus dramatically increasing the risk of biota transfer from the Missouri River drainage system into the Hudson Bay drainage system. The International Joint Commission's conclusion that construction of the Lonetree Reservoir was acceptable is predicated not only upon the construction of a fish screen in the McClusky Canal. Canada strongly supports the IJC's recommendation that fishing in Lonetree Reservoir be prohibited. Canada does not believe, however, that if fish are allowed to enter the reservoir, that this prohibition could be policed effectively. Canada has, therefore, concluded that the McClusky Canal fish screen should be constructed during "Phase I" so that it may serve as a first line of defense and thereby enhance the prospects for prevention of inter-basin biota transfer. . . . Despite improvements in the screen design and operation and notwithstanding this conclusion, Canada agrees with the IJC's determination that the McClusky Canal fish screen, like any other mechanical device, would not prove 100 percent effective in preventing inter-basin biota transfer for all time. Canada would furthermore oppose stocking Lonetree Reservoir with fish so that the effectiveness of the fish screen can be tested and the danger of "bait-bucket transfers" resulting from fishing activities can be minimized.

The Canadian position was restated in an October 12, 1984, letter from Ambassador Allan Gotlieb to the Garrison Diversion Unit Commission. An annex to the letter stated: "In Canada's view, fish screens, in no matter what configuration, cannot provide the required degree of protection for Canadian waters".

State officials have responded with arguments against a fish screen in the McClusky Canal:

1. Any development in the Hudson Bay basin would be many years in the future. A fish screen installed in the McClusky Canal at this time could be obsolete when actually needed for subsequent project phases; a fish screen constructed concurrently with possible development in the Hudson Bay basin would use state-of-the-art techniques. In addition, the two governments may later determine (as contemplated by the IJC) that other options may be more appropriate.

2. A fish screen on the McClusky Canal would cost an estimated $40 million to build and would require annual O&M expenditures of nearly $1.5 million.

3. A smaller fish screen should be operated and tested in a more controlled environment (e.g., a M&I outlet to the Sheyenne River).

4. A fish screen should not be installed in the McClusky Canal if Canada has already predetermined that such a fish screen would be ineffective.

The United States, however, (according to the April 1984 joint press line) "accepted the rationale for building a fish screen on the McClusky Canal to help prevent Missouri River biota from entering the Hudson Bay watershed and agreed to immediately initiate design studies leading to its construction". The design studies were later interrupted by the Garrison Diversion Unit Commission's recommendation to construct the Sykeston Canal (in lieu of Lonetree Reservoir) without any fish screen in the McClusky Canal. Canada did not insist, to the Garrison Diversion Unit Commission, that a fish screen should be installed in the McClusky Canal if the Sykeston Canal is constructed instead of Lonetree Reservoir--although Missouri River water would still be flowing through the GDU system. This issue will certainly continue to be a continuing agenda item during future diplomatic consultations.

Fishing in Lonetree Reservoir (if a reservoir is actually developed) was also under continuing technical study when the Garrison Diversion Unit Commission was established. The IJC concluded (at p. 110 of the final report) "that Lonetree Reservoir and its dams could be constructed without an unacceptable risk to Canada, if all outlet works from the Reservoir are located so as to discharge only into the Missouri River Basin and if fishing in the Reservoir is forbidden". The Canadian position was most recently restated in Ambassador Gotlieb's October 12, 1984, letter (Annex II at p. 2): "We fully support the International Joint Commission conclusion that all fishing in Lonetree Reservoir should be prohibited. Because of the inherent dangers of bait-bucket transfers, Canada's first preference, of course, would be that Lonetree should not be built".

The State of North Dakota has responded to the IJC recommendation and the Canadian position with the argument that a stocked and managed fishery in Lonetree Reservoir would be a useful first line of defense at the same time the reservoir would provide excellent recreational benefits to the entire region.

The Garrison Diversion Unit Commission's Final Report has injected some uncertainty into the international aspects of the GDU. The focus of continuing consultations will certainly shift to consideration of the recommendations in the Garrison Diversion Unit Commission Final Report. The recommendations included the following:

1. "Lonetree Reservoir remains an authorized feature of the Commission Plan, but completion of its construction is deferred pending a determination of need by the Secretary of the Interior and satisfactory conclusion of consultations with Canada, after which appropriation of funds by Congress could be sought." (Final Report at p. 3.)

2. "A municipal and industrial water treatment plant with a capacity of 100 cubic feet per second is recommended to provide filtration and disinfection of water releases to the Sheyenne River for use in the Fargo and Grand Forks areas in accordance with the results of Canadian consultation. It is recommended that the costs of construction, operation, maintenance, and replacement of this feature be considered nonreimbursable as the investment is being made solely for the purpose of maintaining good relations between the United States and Canada." (Final Report at p. 5.)

3. "For those municipal and industrial systems that will deliver Missouri River water to communities in the Hudson Bay drainage, it is recommended that the United States consult with the Government of Canada on plans and methodologies before implementation." (Final Report at p. 5.)

4. "The Commission recommends that the terms and conditions of the Boundary Waters Treaty be honored. The concerns of the Provincial and National Governments of Manitoba and Canada are appreciated and must be recognized. Missouri River waters conveyed into the Hudson Bay drainage as part of the Commission Plan shall be treated in a manner determined acceptable pursuant to United States-Canadian consultations. It is recommended that costs of features or modificatioins to features of the Commission Plan attributable to meeting requirements of the Boundary Waters Treaty of 1909 be considered nonreimbursable." (Final Report at pp. 7-8.)

5. "The Commission recommends a one-time survey of species and pathogens in waters of the Hudson Bay drainage. This survey should be the responsibility of an independent international organization not affiliated with Governments of the United

States or Canada. The scientific team should include qualified technical specialists from the State of North Dakota, the Province of Manitoba, the United States and Canada, and should be funded as part of the Commission Plan." (Final Report at p. 8.)

6. "The Commission recommends that a mechanism be developed and initiated at the earliest practicable time for appropriate parties to negotiate the issue of irrigation water deliveries to Hudson Bay drainage areas of North Dakota. It is the consensus of this Commission that U.S. residents of the Souris and Red River drainage should not be constrained in perpetuity from pursuing the possible benefits of irrigation development with Missouri River water. When Treaty conditions can be satisfied such developments may be pursued. So important is the issue, and so necessary is the development and preservation of a favorable climate for discussion, that the Commission recommends the Secretary of the Interior encourage the parties to meet at specified 6-month intervals for this purpose until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water to the affected area(s)." (Final Report at p. 8.)

7. "[T]he Commission recommends that the Secretary of the Interior initiate discussions with the Department of State to pursue negotiation of modifications to the 1909 Boundary Waters Treaty to more precisely define the word "pollute" for Treaty purposes and make other changes of a mutually appropriate nature." (Final Report at p. 8.)

8. "The Commission recommends that the Secretary of the Interior define a program whereby appropriate authorities of the United States and Canada, in consultation with representatives of the Province of Manitoba and the State of North Dakota, begin during 1985 to explore establishment of a Bi-National Resource Development Program." (Final Report at p. 8.)

9. "The Commission recommends that construction of an outlet from the Devils Lake system to the Sheyenne River and future funding for an inlet to the Devils Lake System be considered. Initiation of either feature shall be based on the outcome of current Corps of Engineers studies, NEPA compliance, permitting reviews, and satisfactory completion of consultations with Canada." (Final Report at p. 10.)

The State has not been informed about further diplomatic consultations between Canada and the United States. We, however, assume that the two governments will soon resume consultations to address the several issues identified in the final report of the Garrison Diversion Unit Commission.

Statement of Alyce Spotted Bear

Chairperson, Three Affiliated Tribes of the
Fort Berthold Reservation, North Dakota

before the

Subcommittee on Water and Power Resources of the
House Interior Committee

February 28, 1985

Re: H.R. 1116

My name is Alyce Spotted Bear. I am the Chairperson of the Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota, which are the Mandan, Hidatsa and Arikara Tribes.

We support the Garrison Diversion Project, as modified by the Garrison Diversion Unit Commission in its report of December 20, 1984, and we support H.R. 1116, which would approve the Commission's modifications, provided H.R. 1116 is amended along the lines of the attached proposed amendments.

The parts of the Project that we are particularly in support of are (a) the Lucky Mound and Upper Six Mile Creek irrigation units, and (b) the five-member fact-finding commission that the Garrison Diversion Unit Commission recommended be established to report on the disruption to Indian reservations caused by the Pick-Sloan Missouri Basin Program of dams and reservoirs. Both of these are very important to us.

When the Garrison Dam was built in 1950, it created Lake Sakakawea, which flooded out practically all of our reservation homes and villages, where we had lived since before the white man came. It ruined the well-balanced economy we had. Some 156,000 acres of our land, including all of the only good farmland we had, were flooded. The social and cultural life of the Three Affiliated Tribes were completely disrupted. Ninety percent of the tribal population, some 357 families, were relocated from the fertile bottom land to the much less productive benchlands of the Reservation. Before the dam, our people had good water, garden crops, timber, firewood, and even coal available whenever they wanted it. Our cattle could spend the winter in the Missouri Breaks, without any more shelter than the Breaks. Also, the closely linked tribal communities along the bottom lands provided help for all tribal members, resulting in a negligible social welfare rate on the Reservation.

We have never recovered from the Garrison Dam. Today our unemployment rate is over 70%. In addition to greatly reducing our means of self-support, the reservoir ruined our transportation system. There is only one bridge on the Reservation, which crosses the lake on the far north end of the Reservation. There are no other bridges for 100 miles downstream. To give you the worst example, take someone living near where Route 8 used to cross the river. If he wants to visit his cousin on the other side of the lake, he now has to drive 145 miles one way to do it, no matter which bridge he uses. Before the dam, the two cousins may have been separated by the river, but only two or three miles apart by car because of the old Route 8 bridge. This has happened to many close relatives, who now live far apart.

Our tribal headquarters used to be centrally located. It was flooded out and now it is located near the bridge at the far north end of the Reservation. Some Council members and people with business before the Council now have to make very long round trips to attend meetings, which slows us down.

Our schools and hospitals were not adequately replaced. Before the dam we had a hospital centrally located. After the dam the hospital was flooded and not replaced, and we had to go to the nearest health care centers off of the Reservation.

For 35 years we have been trying to get along under the difficulties caused by the Garrison Dam. Things are improving each year, but we need a lot more help from the Government than we have gotten to overcome those difficulties. For example, we need replacement farm land, a replacement hospital, some replacement roads, at least one replacement bridge, and above all, a program of economic development to reduce unemployment caused by the Dam.

Some people say we have been paid for what we lost. It is true that we were paid $12 million in 1950, but that was only for the market value of the land and for relocation. What we still need is restoration of our economy and public facilities so that we can be "wholly self-supporting," as our 1891 Agreement with the United States supposedly guaranteed. We feel sorry for the white people who lost their farms too, but they were not a culturally distinct and close-knit community like we were, they did not have treaty rights as we did, and there is no trust relationship between them and the United States as there is with us.

In 1851 the Fort Laramie Treaty recognized that we owned a vast territory in North and South Dakota, Montana and Wyoming; over 12 million acres. In that treaty the U.S. said:

> "The United States bind themselves to protect the aforesaid Indian Nations against the commission of all depredations by the people of the United States ... ." 11 Stat. 749.

The 1851 boundaries were changed by the U.S. from time to time until 1891, when Congress approved an agreement with us setting the final boundaries of our Reservation, saying that these lands "shall be held by the said tribes of Indians as a reservation." Our interpretation of the 1851 Treaty and the 1891 Agreement is that our land, or at least what we still had left in 1891, would be protected against any further taking. And yet all of our best land was taken for the Garrison Dam; in fact, we contributed 40% of the land for the reservoir. That reservoir did not have to be located where it was; even the U.S. Bureau of Reclamation favored a different location that would not have flooded out all our homes and villages.

Furthermore, the 1891 Agreement with us provided that our Reservation was intended:

> "... to enable them [our people] to become wholly self-supporting by the cultivation of the soil and other pursuits of husbandry." 26 Stat. 1032, preamble.

We see this as an undertaking by the United States to protect ourReservation economy.

We have never had a chance to tell our story about what happened in 1949 and 1950. The $12 million we were given in 1949 was conditioned on the Act being approved by the tribal people, and the Act said that the people's approval would be a waiver of all claims in connection with the Garrison Dam. The people of course voted to take the $12 million (they had no real choice, because the dam had been closed and the water was already rising), and that cut off our right to ever go to court, so we never have had a chance to tell our story. We want Congress to hear our story, and that is why we are so strongly in favor of the five-member study commission recommended by the Garrison Diversion Unit Commission.

If our story is heard, Congress will at last know what we gave up to make the Garrison Dam possible, and what steps still need to be taken to help us regain our economic footing.

We also support the two irrigation projects proposed for us by the Garrison Diversion Unit Commission. We lost all of our first-class irrigable land when the Garrison Dam was built. The remaining land on the Reservation is upland prairie, and is expensive to irrigate because the land is fairly high off the lake and because of the need for drainage facilities. However, our hydrologist believes that the two areas recommended in the GDU Commission Report can be irrigation-farmed at a profit. We certainly want to do this, to generate jobs for farm work and get the money circulating around the Reservation.

H.R. 1116 does not cover all the points it should, and our support of it is conditioned on certain amendments being adopted. H.R. 1116 expressly approves the two irrigation projects recommended for Fort Berthold by the GDU Commission. This is good, and as I just said, we support that.

The GDU Commission made another recommendation, to set up the five-member commission. As I said before, we strongly support that too. The five-member commission is as important to us as the two irrigation projects, and H.R. 1116 should expressly approve it too. We realize that the way H.R. 1116 is written it may be that the five-member commission is impliedly authorized already, but this should be as specific as the two irrigation projects.

We also recommend that the word "irrigability" in Sec. 3 be changed to "arability." The Bureau of Reclamation advised us that their main concern was to be assured that the land was capable of growing crops, and not so much that any particular cost-benefit ratio be achieved.

We also recommend that the Secretary of the Interior be authorized to include some of the on-farm costs in the project funding. We suggest the following language: "Such on-farm costs as the Secretary may find are justified are hereby authorized." There is precedent for this on other Indian reservations.

Our proposed amendments to H.R. 1116 are attached. I appreciate the opportunity to testify on behalf of the Three Affiliated Tribes.

Proposed Amendments to H.R. 1116

1. In Sec. 1, after the second "Dakota" add:

   ", and certain Indian tribes within
   North Dakota,"

2. In Sec. 1, before the word "contribution" add:

   "and said tribes'"

3. In Sec.3, change "irrigability" to "arability".

4. In Sec. 3, add a sentence at the end as follows:

   "Such on-farm costs as the Secretary may find are justified are hereby authorized."

5. Add a new section, as follows:

   "SEC. 3A. The Secretary of the Interior shall establish a five-member commission to assess and report on steps necessary to complete the indemnification of Indian communities of North Dakota that were disrupted by construction of Pick-Sloan Missouri Basin Program dams and reservoirs. The commission will report to the Secretary no later than October 1, 1985." (This language is taken almost verbatim from the GDU Commission recommendations, pp. iii and 9.)

National Audubon Society
NATIONAL CAPITAL OFFICE
645 PENNSYLVANIA AVENUE, S.E., WASHINGTON, D.C. 20003 (202) 547-9009

TESTIMONY OF NATHANIEL P. REED

CHAIRMAN, EXECUTIVE COMMITTEE

NATIONAL AUDUBON SOCIETY BOARD OF DIRECTORS

BEFORE

THE SUBCOMMITTEE ON WATER AND POWER RESOURCES

INTERIOR AND INSULAR AFFAIRS COMMITTEE

ON

LEGISLATION TO IMPLEMENT

FINAL REPORT

GARRISON DIVERSION UNIT COMMISSION

February 28, 1985
Washington, D.C.

My name in Nathanial P. Reed. I am chairman of the Executive Committee of the Board of Directors, National Audubon Society and I am here today representing the board and the membership throughout the country.

From 1969-1975, I served as Assistant Secretary of the Interior for Fish and Wildlife and National Parks. During my tenure at the department, I first became involved in the Garrison controversy. Presently I serve on the Water Board of Southeastern Florida and am intimately familiar with the problems associated with bringing and maintaining water for large region. On behalf of Audubon I appeared before the Garrison Diversion Unit Commission at each of the three public hearings in North Dakota and presented our views, positions, and recommendations.

Appearing with me is Dr. Glenn Paulson, Senior Vice President for Science and Sanctuaries.

We are here today to urge this committee and the entire congress to act promptly on legislation implementing the conclusions and recommendations of the Garrison Diversion Unit Commission.

Secretary Clark was extremely supportive of the Commission throughout its life. He appointed high quality individuals to a difficult assignment to be performed in an agonizingly short period of time. And, before leaving office, he pointed to the work of the Commission with particular pride. His support of the effort to find alternatives to Garrison is appreciated.

Chairman Treen and the others who served on the Commission, as well as its staff, are due enormous credit. The assignment was accepted by each with the utmost seriousness and an absolute commitment to resolution of this difficult conflict.

THE COMMISSION REPORT

The Commission plan is a compromise. It doesn't have everything we want, nor does it have everything North Dakota and project supporters want. It requires that all interested parties accept change, but as we stated during the Commission process, the changes and modifications recommended by the Commission should be viewed as a genuine opportunity to provide greater benefits to more North Dakotans than under the authorized plan, while recognizing natural resource values.

Former Okalahoma Senator Henry Bellmon served on the Garrison Commission and at the final meeting he commented on the actions being taken by the panel stating:

> Commissioner Bellmon: Let me say that I'm convinced the Commission has already performed an important service to the State of North Dakota, as well as to the country in the fact that the principal thrust of of the Garrison project, regardless of what happens here, will probably change from an emphasis on irrigation to an emphasis on M&I water. The original project would have served a fairly small number of irrigators in the state by spending thousands of dollars per acre and $1.6 million per farm to bring irrigation water to clearly a small number. The plan before us...will bring far more M&I water to far more North Dakota citizens and in that way enhance the future development of the state for a large percentage of this population rather than only a few.

Several commissioners noted after the Commission adjourned that the report needs to be fine tuned and have its loose ends fixed. Consistent with the findings of the Commission, we are here today to support legislation that will fully ratify the work of the Commission and make the necessary adjustments to its plan.

If this proposal were put on the table today as a new water development project, we would outright oppose it. The costs are too great and the environmental impacts are too severe. The Commission Plan, it must be remembered, is a compromise and we support that compromise. The ratification by the congress will bring an end to the bitter dispute that has existed for more than a decade. The National Audubon Society is prepared to support the modified plan and work to support it if North Dakota does the same.

HISTORY OF THE COMMISSION

The controversy of the last decade and a half surrounding Garrison is well known to this committee and to the entire congress. Beginning last March, at the request of Congressman Dorgan, a serious effort was undertaken to bring about resolution of this conflict. Mr. Dorgan's effort on the House side brought the parties close to an agreement. Though no agreement was reached while the appropriations bill was pending in the House, we were sufficiently encouraged and pursued the effort in the senate. On June 1, Russell Peterson, the President of Audubon and Donal C. O'Brien, Jr., the Chairman of the Board wrote the North Dakota delegation and the governor and in that letter, we conceded that North Dakota was entitled to a water development project. We affirmed our long-held firm opposition to Garrison as authorized and urged all parties to come together to seek alternatives.

That letter led to a series of events culminating in the amendment offered by Senators Burdick and Andrews to the FY 85 Energy and Water Development Appropriations bill. That amendment provided for the establishment of a Commission to determine the contemporary water development needs of North Dakota and recommend alternatives, and it set forth several specific charges for Commission's work.

THE COMMISSION DIRECTIVE

The Commission was created by Congress and given very unusual and extraordinary authority. The Commission was endowed with the power to recommend and these recommendations were intended to be self-executing. In other words, the Secretary of the Interior was required to implement those recommendations.

This was not a "study" commission in the traditional sense, rather it was created with an ability to impose change. It was a forum for decision-making and Congress sought the assistance of a blue-ribbon panel to resolve the long-standing controversy.

It is important to review key elements of that legislation and consider the Commission's Final Report in light of the statutory directive. P.L. 98-360 provides that the Garrison Diversion Unit, as authorized, raised, "significant issues of economic, environmental, and international concern," and that there were "municipal and industrial water resource problems in North Dakota that are presently unmet." In addition, there are "irrigation and agricultural water needs in areas which cannot be met by the Garrison Diversion Unit as presently authorized."

Based on those findings and others, the commission was then directed "to examine, review, evaluate, and make recommendations with regard to the contemporary water needs of the State of North Dakota...." The Commission's clear emphasis was on the determination of "contemporary" water needs.

And as importantly, the Congress directed this Commission to "examine the water needs of North Dakota and propose development alternatives which will lead to the early resolution of the problems identified." Again, it should be emphasized that the congress was seeking "alternatives" which would lead to the "early resolution of the problems". Congress, like many North Dakotans, had obviously tired of the unending controversy and it wanted resolution of the problem and an end to the conflict.

The National Audubon Society participated in this process with those words in mind. We have made significant and fundamental changes in our position. Throughout this process we have repeatedly modified long-held positions, and did so in an effort to bring about realistic, meaningful, and environmentally sensitive water development in North Dakota by finding fair compromises to a series of issues that have existed over the years.

SECRETARIAL APPROVAL AND IMPLEMENTATION

On December 14, the Commission concluded its work approving the Commission Plan with an 11-1 vote. Six days later, on December 20th, in a brief ceremony at the Interior Department, Chairman Treen and several of the Commissioners presented the Secretary with their final report. The Secretary undertook a major review of the Commission's work and on January 18 approved it. In early February, the Department forwarded legislation to the congress to authorize commission recommendations not otherwise authorized. The process of implementing the Commission recommendations is now underway.

THE LEGISLATION

Congressman Dorgan has introduced H.R. 1116, legislation drafted by the Department of the Interior and submitted to the Congress on February 5. We assume this bill will be the legislative vehicle for marking up a bill at the appropriate time. Prior to the hearing, we understand that Mr. Dorgan may seek to modify or even reintroduce the bill for jurisdictional reasons.

Audubon supports legislation to implement the Commission plan and we believe the legislation pending before this committee should be amended to accurately and comprehensively reflect the decisions of the Garrison Diversion Unit Commission.

Here are some of our major concerns with the bill:

o the bill merely adds several new sections to the existing authorization -- in effect it grafts the new provisions to the 1965 authorizing act. It adds new features recommended by the Commission, but it does not eliminate features of the old project which the Commission wanted deleted.

o the commission's report is not referenced, or incorporated into the law as is frequently done with Bureau projects.

- the legislation should direct the Bureau to implement the Commission recommendations.

- the legislation should authorize the Sykeston Canal as a substitute for the Lonetree Reservoir.

- the legislation should modify the existing authorization to limit construction to the Commission's recommendations. The failure to impose a limitation could result in the construction of a 320,000 acre, $1.8 billion project.

The bill as drafted fails, in our estimation, to follow through, ratify, or otherwise mandate the implementation of the Commission conclusions and recommendations. The first step in implementing the Commission plan is to spell out in the law exactly how the Bureau can proceed with Garrison. All parties deserve to have all the elements of the modified plan detailed so there is no misunderstanding now or in the future. Failure to be absolutely clear about what can and cannot be built will only perpetuate the controversy -- and will be a disservice to North Dakota, the Congress, and the rest of us who care about this issue.

We believe the bill is conceptually inadequate. That is, approach is to give the Bureau of Reclamation absolute flexibility and total discretion to take the old authorization and the new Commission plan and determine which portions of each it wants to build. Under the department's bill, it could choose to build only the modified Garrison -- that is, the Commission plan, the original project, or some combination of both.

We believe the Commission's plan for modifying Garrison is clear and straightforward. Apparently the Bureau does not -- as I shall illustrate in a moment -- and for that reason, it is imperative that the implementing legislation be very precise in telling the Bureau just what it can and cannot do with regard to the Garrison project.

Let me give you an example to illustrate why the directions to the Bureau must be clear and why the broad discretionary authority in the bill must be limited.

In a recent meeting with Bureau officials, Audubon representatives were advised that Garrison was now a 320,000 acre project because, in their view, the Commission failed to affirmatively deauthorize any features or acreage of the old project. We do not agree. Furthermore, the Bureau's Garrison Project Data Sheet for FY 86, which was submitted to the congress just two weeks after Secretary Clark approved the Commission's plan, merges the plans. The Schedule of Construction merges the old project and the new one coming up with a $1.8 billion project.

Mr. Chairman, the Bureau's interpretation of their authority and their "boldness" in presenting a $1. billion project to congress is truly staggering. Let me turn, for a moment, to what the Commission has said. According to the Commission its "...Plan will develop less land for irrigation (130,940 acres) compared with 250,000 acres under the 1965 Plan..." The cost of the commission recommended plan as noted in the Final Report is $1.1 billion. The Commission further specifies the construction of certain features and not of others. The Commission did not recommend a merged 320,000 acre, $1.8 billion plan and to retain such a plan in the law is fundamentally inconsistent with the final action of that panel.

We urge this committee and the congress to be very specific and carefully spell out, in detail, the modifications. It's absolutely critical in dealing with an issue as sensitive and difficult as this one has been, to provide a detailed blueprint of actions and decisions so that all parties fully understand what to expect.

MUNICIPAL AND INDUSTRIAL WATER

Providing municipal and industrial water has always been a part of Garrison. In response to the declaration of need by representatives of the state, and the formal state position before the Commission, M&I was greatly expanded. The Commission recommended the construction of 20 different municipal water supply systems throughout the state.

North Dakota has bad drinking water throughout the state. According to the State Health Department witness at the Commission's hearing in Bismarck, "82 percent of the city and rural or regional water supply systems, serving about 155,000 people currently are at or exceed these (federal) primary and secondary standards. Approximately one-half of these systems are outside of the Garrison Conservancy District."

Attached to his testimony is a listing of almost 200 cities and towns, 90 of which are located outside the conservancy district boundaries. That testimony further revealed that 187 towns exceeded the standard for total dissolved solids, 24 exceeded fluoride, 12 exceeded selenium, 124 exceeded manganese, 4 exceeded arsenic, 100 exceeded sulfate, among others.

North Dakota clearly spelled out a need and the Commission approved an impressive system to provide good quality drinking water to 375,000 people in 130 towns located in all four corners of the state. This change in Garrison truly puts Missouri River water to work for the people of North Dakota.

We do recognize that concerns have been raised about financing the M&I system, and we have advocated exploring different means of financing. We will consider any reasonable financing package as long as it is generally consistent with the Commission plan.

LONETREE RESERVOIR AND SYKESTON CANAL

The Commission spent more time discussing, reviewing, and debating the Lonetree Reservoir and its functional replacement, the Sykeston Canal than perhaps any other issue. The Commission firmly voted against proceeding with Lonetree. We agree with that decision and praise the Commission for making it. It was a sound resource decision that permits development to occur, but without the destruction of the unique Lonetree Valley and the inundation of the Sheyenne National Wildlife Refuge.

Lonetree was a large regulating reservoir located in the central part of the state which virtually straddled the drainage basin divide between the Missouri River Drainage Basin and the Hudson Bay Drainage (which drains into Canadian waters). The major purpose of this reservoir was to provide irrigation water into the Canadian drainage basin. The Commission recommended the deletion of four major irrigation areas in the Hudson Bay Drainage, therefore the need for the reservoir was largely eliminated.

Conservationists and Canadians both opposed the Lonetree Reservoir. Located in the long, winding Lonetree Valley is the Sheyenne National Wildlife Refuge which would have been completely inundated by the construction of the controversial reservoir. The Canadian federal government and the Manitoban Provincial government vigorously opposed the interbasin transfer of water (the irrigation in the Hudson Bay Drainage) because it would result in enormous and irreversible damage to Canadian fisheries.

Let me emphasize that the rejection of Lonetree by the Commission is the key feature of the compromise.

The Commission technical staff concluded that the Sykeston Canal (the functional substitute for Lonetree) will more than adequately serve as a means of bringing water from the McClusky Canal east to the New Rockford Canal and ultimately the James River Basin.

However, rather than getting Sykeston built and operational, it troubles us that the Garrison Diversion Conservancy District has lauched an effort to have Lonetree reinstated. With the Commission Report only 14 days old, the Garrison Diversion Conservancy District has formally asked the Secretary of the Interior to make a formal determination as to the need for Lonetree now and then several days later, formally asked the Department of State and the Department of the Interior to start negotiations with Canada to build Lonetree.

Obviously, the conservancy district wants to preempt any work on the Sykeston Canal thereby undecutting the Commission plan.

Work should proceed on Sykeston and an evaluation of Lonetree, if it is to occur, should be made after Sykeston is in place and the Commission plan has had an opportunity to operate it. To preempt the Commission plan is to reject it. Make it operational. Make it work.

Mr. Chairman, again, let me emphasize that critical to our support of this compromise is the deletion of Lonetree. Absent deletion, support for this compromise would simply not exist.

Given the importance and sensitivity with the Sykeston Canal, we would recommend that the Committee direct the Bureau to have the work on Sykeston independently reviewed.

Lonetree Valley, as recommended by the Commission, will be managed as a wildlife area pursuant to the Fish and Wildlife Coordination Act. We support that decision.

KRAFT SLOUGH

According to the Commission's Final Report, it recommends that "Kraft Slough be recognized as a unique area with wildlife resource values that transcend all other potential uses." It goes on to state that no project activity should be undertaken at that site and that the Secretary acquire the property to protect it in perpetuity.

The Commission also recommended that Kraft Slough be manged by an appropriate federal or state agency. We would recommend that it be placed in National Wildlife Refuge system.

There are uplands areas and adjoining wetlands which provide valuable habitat and support for Kraft Slough and its waterfowl and wildlife. We urge that sufficient lands be acquired to protect the vitality and intergrity of this valuable wetlands resource.

JAMES RIVER BASIN

Most of the irrigation proposed in the Commission plan is located in the James River Basin. Since the Commission concluded its work in December, we have asked both the Bureau of Reclamation in Bismarck and the Fish and Wildlife Service for an assessment of the impacts in the James River and its basin of the final Commission plan. To date, that assessment has been unavailable

We were advised by the Commission staff that the Commission plan as adopted could be handled by the existing river channel with a minimum of channelization or downstream flooding.

We are deeply concerned about two national wildlife refuges located on the James River. Arrowwood NWR is located just north of Jamestown Dam and Reservoir and Sand Lake NWR located in South Dakota just below the North Dakota border. Sand Lake is an especially important staging area for waterfowl in the migratory flyway. The Commission recommended that by-pass channels, if required, be constructed to protect those important refuges.

We are anxious to have the Bureau of Reclamation/Fish and Wildlife Service joint evaluation and computer model made available as soon as possible so that the impacts will be fully understood.

This is a valuable river in the heart of the migratory flyway path. Actions should not be taken by the Bureau making irreversible commitments along the James River until a revised NEPA statement is concluded and the groundwater recharge evaluation has been completed.

The Bureau should be directed to manage the river to minimize the impacts on it and the people who live adjacent to it.

MITIGATION

The Bureau of Reclamation is required by law to fully mitigate the impacts of its projects. The history of Garrison is replete with controversy over mitigation. This has lead, in part, to the extremely strained relationship between North Dakota and the U.S. Fish and Wildlife Service.

With the deletion of areas such as Lonetree, Kraft Slough, and others, the Commission followed the principle of "avoidance in first instance." And, the formula adopted by the Commission in establishing mitigation is "acre-for-acre" over HEP which is clearly preferred.

We remain concerned that the Commission plan may have understated some of the project impacts, and therefore the Commission assumed mitigation obligations are understated. We therefore recommend that the Fish and Wildlife Service be directed to prepare a revised mitigation plan based on a full evaluation of the impacts of the modified plan.

We would hope, with the compromise plan approved, that North Dakota will reverse its policies regarding the Fish and Wildlife Service and its programs in that state. It's time to move forward with the Service programs.

COMMISSION REPORT ERRORS

The Commission's Final Report contains several errors relating to significant issues which should be clarified during the committee's proceedings.

(1) Commission adopted principles. On page one of the Executive Summary in the Final Report, the Commission sets forth three principles adopted at Fargo to guide the work of the panel. The first principle is incorrectly stated. At the Fargo business meeting, the Commission the first principle adopted read as follows: "To not foreclose future opportunities." The additonal words were not included in the Approved Work Plan and their inclusion in the Final Report alters the meaning of the Commission action.

(2) Capacity of James River Feeder Canal. The December 5, Preliminary Final Report of the Commission listed the James River Feeder Canal as having a 1,600 cfs capacity. We questioned the accuracy of this and staff informed us that it was in error. On December 10, the Commission published an errata sheet, noted the error, and correctly listed the canal capacity of 450 cfs. A Commission press release issued on December 15 correctly notes the capacity at 450cfs. However, for unexplained reasons, the error was again repeated in the Final Report.

(3) Lincoln Valley irrigation area. The Lincoln Valley irrigation area (6,515 acres) was added to the Commission plan at the final meeting in Minot. However, the Final Report, (page 6) adds qualifications for this particular area not discussed during any of the Commission proceedings. According to the report, "...it is recommended that an equivalent acreage in the West Oakes Extension area be substituted should no cost-effective measures to manage Lincoln Valley return flows be identified." Moreover, West Oakes was considered by the Commission and not accepted. To provide for its inclusion in this manner is inconsistent with actions affirmatively taken by the Commission. This condition should be rejected by the Committee.

(4) Unapproved irrigation areas. A table on page 33 of the Final Report displays the acreage to be irrigated, broken down by unit. A footnote to that table, with regard to the 113,360 irrigation acres, states, "Should, for any reason, some lands identified above be found unsuitable for irrigation, an equivalent acreage in the West Oakes Extension Area should be substituted." This was never discussed or approved during the Commission proceedings. The Commission considered the West Oakes Extension Area and did not include it in the Commission Plan.

(5) Sheyenne National Wildlife Refuge. On page 6, the Final Report states that this refuge "be replaced purusant to the National Wildlife Refuge System Administration Act." A review of the transcript concludes that the Commission did not make this recommendation. The status of the refuge should be maintained. The Committee should review this important matter and provide the necessary clarification.

CONCLUSION

The National Audubon Society supports the Commission Plan. It's a compromise and our support and that of others in the conservation community is dependent, among other things, on the elimination of Lonetree and the substitution of Sykeston Canal. As a stand alone project, Audubon would not otherwise support it.

As this committee reviews the Commission Plan and prepares legislation to ratify and implement the plan, we strongly urge that for the benefit of all interested parties the Committee be as specific as possible is defining the modified Garrison. We urge this Committee to provide as much clarity and direction as possible and to reject attempts by some to deviate from the Commission approved plan. .

The Commission was directed by the congress to consider the contemporary water development needs of North Dakota. It did and then proceeded to significantly change the authorized Garrison Diversion project to meet current water needs. While irrigation is substantially reduced, M&I water service is greatly expanded in response to the detailed record created by the Commission during its deliberations. M&I is, by far and away, the contemporary water need for North Dakota. While Garrison has been changed, it has been changed to provide Missouri River water -- clean drinking water -- to almost two out of three citizens in the entire state. No state can match North Dakota with such a progressive program.

Garrison Diversion, as originally conceived four decades ago was intended to give preference to water development functions "which make the greatest contribution to the well-being of the people and to the areas of greatest need." With the enactment of legislation implementing the Commission Plan, the long-standing historical commitment to the State of North Dakota by the federal government for a water development project is met.

We are prepared to work with North Dakota and all other interested parties to honor that commitment consistent with resource sensitivity.

National Audubon Society
950 THIRD AVENUE, NEW YORK, N.Y. 10022 (212) 832-3200 CABLE: NATAUDUBON

March 4, 1985

The Honorable George Miller
Chairman, Water and Power Resources Committee
1522 Longworth House Office Building
Washington, D.C. 20912

Dear Mr. Chairman:

This letter will supplement the Audubon Society's statement presented to your committee last Thursday regarding Garrison Diversion.

First, we wish to further comment on the matter of Lonetree Dam and reservoir. It is important for the Committee to understand that the Garrison Commission voted against Lonetree. They did so clearly and emphatically. No issue was more thoroughly considered or debated in such detail. No feature of the project is more controversial. With Lonetree, at any size, approved, no deal would have been forged and no compromise reached.

It should be clear that the Commission voted to reject Lonetree and voted for the Sykeston Canal as its "functional replacement." The Commission then directed that the entire 33,000 acre area be managed as a wildlife area. While Lonetree is left on the books, the Commission decided that it not be built and set forth three conditions for its consideration in the future. We would expect that consideration for Lonetree would not even occur until after Sykeston was built and operating, many years from now.

It is a distortion to declare that Lonetree is merely deferred, without fully understanding that the Commission determined that a functional replacement was selected to convey water from the McClusky Canal to the New Rockford Canal.

Second, attached is Audubon's prepared statement before the Commission's concluding meeting in Minot and we ask that it be included in the hearings record of this committee. In particular, your attention is directed at two sections of the statement, one addressing Lonetree and the other regarding the concessions made by Audubon in forging this compromise.

Third, the Commission adopted a work plan at its Fargo meeting in mid-November. In it, the Commission agreed to three principles to guide its work. The first principle stated that, "future opportunities must not be foreclosed," but in the Commission's Final Report, that principle is incorrectly stated. This matter is noted on page 12 of our February 28 statement and the committee should be aware of the error. A copy of the Commission's November 21st press release is attached which displays the principles adopted and includes a copy of the full approved work plan, which also displays the principle.

Fourth, the Commission press release on December 15, a day following Commission approval of its final report, indicates on the last page that the capacity of the James River Feeder Canal is 450 cfs, not 1600 cfs.

We ask that our statement of December 13, and the Commission's press statements of November 21 and December 15 be made a part of the record on H.R. 1116 to correctly clarify matters of considerable importance.

Thank you.

Sincerely,

Glenn Paulson

Dr. Glenn Paulson
Senior Vice-President for Science and
Sancturaries

GARRISON DIVERSION UNIT COMMISSION

For Immediate Release
December 15, 1984

Jim Harpster (303) 239-0701
Kathy House (303) 239-0701

GARRISON COMMISSION ADOPTS PLAN TO PROVIDE NORTH DAKOTA WATER SERVICE

The Garrison Diversion Unit Commission completed its five-month-long assignment late Friday, December 14, by approving a plan that would provide irrigation service to about 130,000 acres of North Dakota farmland and offer treated water to as many as 130 communities throughout the State.

In a 16-hour workday, the Commission endorsed a plan that substitutes the Sykeston Canal for the Lonetree Dam that was a part of the original Garrison Diversion Unit plan authorized by the Congress in 1965.

The plan is similar to that included in the Preliminary Final Report issued by the Commission on December 5, 1984. Chairman David C. Treen and several Commission members will submit the recommended plan to Secretary of the Interior William Clark in Washington, D.C., on December 20, well in advance of the December 31 deadline imposed in legislation that created the special body.

Provisions of the legislation establishing the Commission require the Secretary to commence construction beginning January 2, 1985, of those Garrison facilities common to the recommended plan and the originally authorized Garrison Diversion Unit. Congress has appropriated $53 million for work during the current fiscal year.

The 28-mile-long Sykeston Canal will join the existing McClusky Canal to the west with the partly completed New Rockford Canal to the east. It will convey Missouri River water eastward around the Lonetree Dam site for eventual delivery into the New Rockford Canal and James River to supply irrigation areas in the central and southeastern part of the State, as well as 100 cubic second feet of treated waters to the Sheyenne River to supply the cities of Fargo, Grand Forks, and Minot.

A facility to treat Missouri River waters destined for release to the Sheyenne River would be located near the confluence of the Sykeston and New Rockford canals. It would include provision for both filtration and sterilization, as necessary to accommodate Canadian concerns regarding biota transfer.

A principal distinction between the recommended plan and the plan offered in the Preliminary Final Report of three weeks earlier is the elimination of about 19,000 acres of proposed irrigation areas along the Missouri River and the substitution of additional irrigated areas in the James River Basin, including 32,000 acres in the New Rockford area.

Another major distinction is in a provision providing repayment assistance to lower the cost of treated water deliveries to municipal, rural and industrial users.

A part of the cost to construct municipal, rural and industrial water systems would be provided from Federal revenue sources. Specifically, the cost to users would be limited to $10 per month per household, or the operating and maintenance cost of the system, whichever is greater. Remaining costs would be absorbed without interest. This is intended to provide affordable water service to the greatest numbers of North Dakota residents.

Contracts for repayment, operation and maintenance would be required from local communities before water service would be provided for municipal and industrial purposes as well as for irrigation.

Still a third distinction from the Commission's Preliminary Final Report is the inclusion in the recommended plan of a 17,000 acre-foot reservoir at the Glover site near Oakes. It would act as a re-regulating facility of James River waters for delivery to the West Oakes irrigation area and to control release of excess waters downstream to South Dakota.

The Commission also authorized construction of an outlet from Devils Lake, contingent upon the results of a Corps of Engineers study now in progress and successful conclusion of negotiations with Canada. Stabilization and freshening of Devils Lake has been an enduring issue of concern in the State.

Several provisions were made by the Commission in behalf of the Fort Berthold and Standing Rock Sioux Indian Reservations. It directed the Secretary of the Interior to appoint a five-member commission to consider by October 1, 1985, a series of potential developments for the Three Affiliated Tribes at Fort Berthold and the Standing Rock Sioux.

These include full potential for irrigation, financial assistance for on-farm development costs, replacement of infrastructures lost to the filling of Lakes Sakakawea and Oahe, preferential rights to Pick-Sloan power, development of shoreline recreation, return of excess lands, additional financial compensation, protection of reserved rights, and funding of all these items from Garrison Unit appropriations.

At the Lonetree site, the Commission said the 33,000 acres already in public ownership should be preserved and managed for wildlife purposes by the Bureau of Reclamation. It specifies that no further Congressional authority would be required for completion of Lonetree Dam and Reservoir at some future date.

The Commission proposes that the Secretary of the Interior seek clarification of his authority to implement the recommended plan, and that the originally authorized Garrison Diversion Unit be reinstated if the recommended plan is not accepted by the Congress by December 31, 1986.

Commission officials said the recommended plan is expected to satisfy Canadian interests given that government's recent endorsement of provisions of the Preliminary Final Report and assurances that only adequately treated waters would be conveyed into the Hudson Bay Drainage of North Dakota.

GARRISON DIVERSION UNIT COMMISSION
RECOMMENDED PLAN

Synopsis

The plan would:

- Provide municipal, rural, and industrial water service to as many as 130 towns and rural areas

- Make Missouri River water available to irrigate 130,580 acres of North Dakota land

- Treat municipal, rural, and industrial water delivery into the Hudson Bay drainage to avoid biota transfer to Canada

- Include measures for mitigation and enhancement of wetlands and recreation

Municipal and Industrial Service

- Systems providing treated Missouri River or ground water by closed pipelines and open channels, with some local water treatment facilities

- Serving a population of up to 376,000 people in 130 towns and rural areas throughout the State of North Dakota to correct water quality/quantity problems. Includes service to the cities of Minot, Grand Forks, and Fargo.

- Capital repayment assistance to lower monthly family cost to $10 or to the operation and maintenance costs of the system, whichever is greater.

Irrigation Areas

Acres - 113,000 in James River drainage and 17,580 on Fort Berthold and Standing Rock Indian Reservations. Total irrigated acres-130,580.

Area	Irrigation Acres	Indian Lands	
Turtle Lake	13,700	Lucky Mound	7,700
McClusky Canal	4,000	Upper Six Mile Creek	7,500
Lincoln Valley	6,515	Fort Yates*	2,380
Harvey Pumping	2,000		
New Rockford Canal	1,200		17,580
New Rockford	20,935		
New Rockford Extension	32,000		
LaMoure	13,350		
West Oakes (includes West Oakes Test Area)	19,660		
	113,000		

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* To be implemented if requested by the Standing Rock Sioux Tribe.

Wildlife Programs

Mitigation of wetland losses from the project will be on the basis of acre-for-acre replacement. Project-related wildlife enhancement and recreation will be included.

Project Features

Lake Sakakawea

Snake Creek Pumping Plant

Lake Audubon

McClusky Canal

Sykeston Canal at 1600 cubic feet per second

New Rockford Canal at 1600 cubic feet per second

James River Feeder Canal at 450 cubic feet per second

Robinson Coulee/James River Diversion

James River Channel Improvements

Phase 1 of Glover Reservoir

GARRISON DIVERSION UNIT COMMISSION
P.O. BOX 261410
LAKEWOOD, COLORADO 80226-1410

For Immediate Release
November 21, 1984

Jim Harpster (303) 239-0701
Kathy House (303) 239-0701

GARRISON COMMISSION CONCLUDES HEARINGS; PROPOSES WORK PLAN

The Garrison Diversion Unit Commission concluded its second public hearing November 17 and followed it with a business meeting at which a proposed work plan suggested by Commission Chairman David Treen and revised by the Commission was adopted. The work plan directs the Commission staff to focus its supplement to the Interim Staff Report on three basic alternative approaches to the Garrison Project and North Dakota water needs.

The hearing, held November 16-17 in Fargo, North Dakota, was the second of two required by legislation authorizing the Commission. Its purpose was to solicit testimony regarding the Interim Staff Report on Issues and Alternatives, released November 7.

The Commission heard 9 hours of testimony over the 2-day period. Witnesses included North Dakota Governor Allen Olson, Governor-elect George Sinner, North Dakota Senators Mark Andrews and Quentin Burdick, North Dakota Congressional Representative Byron Dorgan, and South Dakota Governor William Janklow. Also testifying were representatives of the State of North Dakota, the National Audubon Society, Indian tribes within the State, the Province of Manitoba; and individuals from North Dakota, South Dakota, Minnesota, and Manitoba.

Following the close of testimony, the Commission conducted a business meeting to discuss the Interim Staff Report.

Chairman Treen opened the business meeting by offering a proposed work plan for consideration by other memebers of the Commission, who discussed and amended the plan before its unanimous adoption (copy enclosed).

The first item of the proposed work plan lists three guiding principles:

1. Future opportunities must not be foreclosed.

2. The paramount objective is to meet the needs of the greatest numbers of people at an acceptable cost.

3. Environmental impacts must be minimized.

The plan then goes on to require further staff analysis of three alternatives: the currently authorized plan, the first phase of the State plan, and a composite of alternatives meeting agricultural, municipal, rural, and industrial water needs of the State of North Dakota. The Commission also requested that staff evaluate seven variations of the composite alternative.

The supplemental report will be reviewed by Commission members at a business meeting November 28 in Washington, D.C. The Commission's preliminary final report will be released for public review about December 5.

The Commission will meet in Minot, North Dakota, on December 13 to hear public comment on the preliminary final report. Commissioners will conduct a business meeting at Minot December 14-15 to consider their possible recommendations.

Legislation authorizing the Commission requires a two-thirds majority approval of recommendations to be sent to the Secretary of the Interior by December 31. Should the Commission be unable to reach such a decision by the deadline, construction would proceed on the Garrison Diversion Unit as currently authorized.

APPROVED WORK PLAN

TO BE ADDRESSED BY THE GARRISON UNIT COMMISSION STAFF

November 20, 1984

These proposals are based on the following principles:

1. Future opportunities must not be foreclosed.

2. The paramount objective is to meet the needs of the greatest numbers of people at an acceptable cost.

3. Environmental impacts must be minimized.

The GDU Commission Staff is directed to focus on the following:

1. Alternative No. 2 (as listed in the Interim Report). Authorized 250,000-acre plan as now proposed (in its own right and as a baseline for comparison).

2. Alternative No. 10 (first phase of the State of North Dakota plan).

3. A six-part Composite of Alternatives No. 5, 6, 7, and 8 plus other Building Blocks (from the Interim Report).

   a. Municipal, rural, and industrial service at least cost for 157 communities.

      (1) Sand filter/ozonation with flow down Sheyenne River.
      (2) Use satellite well fields where feasible.
      (3) Include Southwest Pipeline Project.

   b. Agricultural land base (about 250,000 acres).

      (1) Missouri pumping 87,000 acres.
      (2) Missouri-James 150,000 acres.
      (3) Devils Lake 25,000 acres.

   c. Devils Lake stabilization.

   d. Full mitigation based on acre-for-acre and ecological equivalency criteria purchased concurrently. Include also project-related enhancement, recreation, and best management practices.

   e. Wetlands maintenance program, including purchase of easements. Staff to explore funding from private sources, State of North Dakota, and Pick-Sloan power revenues.

f. Include Taayer Reservoir and Lonetree Reservoir, but configure Lonetree at size required to meet the various water needs that are associated with this Composite or any variation thereof.

4. Staff should evaluate seven variations on the Composite identified above. They are:

a. Possible additions to principal water supply facilities in North Dakota necessary to deliver water for 70,000 acres in South Dakota.

b. Possible deletion of Lonetree Reservoir and replacement with Sykeston Canal.

c. Possible deletion of Taayer Reservoir and replacement with the Glover Alternative.

d. Possible deletion of both Lonetree and Taayer Reservoirs with irrigable lands limited to those that can be served. The Oakes aquifer recharge plan will be included as a part of this alternative.

e. Possible deletion of Devils Lake maintenance and irrigable lands in Devils Lake Basin.

f. Possible deletion of the Southwest Pipeline Project, Devils Lake maintenance, irrigable lands in the Devils Lake Basin, and such additional irrigation areas (on a least cost effective deletion strategy) as necessary to reach a project having capital costs equivalent to those of the authorized project.

g. Possible use of a closed pipeline system to provide municipal, rural, and industrial water in the Sheyenne-Red River drainages.

5. Staff should also draft tentative findings, conclusions, and recommendations for consideration by the Commission on November 28th in the following areas:

a. Indian resource needs.

b. Bi-National Development Program.

c. Continuing negotiations with Canada for possible irrigation use of Missouri River water in the Hudson Bay drainage area.

d. Other issues identified in the Interim Staff Report.

e. Requirements of the Statute that created the Commission.

6. In addition, the staff is to:

a. Identify those alternative features for which Congresssional authorization would be required.

b. Evaluate cost and benefit ratios based on a variety of assumptions.

c. Time permitting, consider the financial impacts on non-irrigated farms within the Garrison Diversion Conservancy District.

National Audubon Society
950 THIRD AVENUE, NEW YORK, N.Y. 10022 (212) 832-3200 CABLE: NATAUDUBON

TESTIMONY OF NATHANIEL P. REED
NATIONAL AUDUBON SOCIETY
BEFORE THE
GARRISION DIVERSION UNIT COMMISSION

December 13, 1984
Minot, North Dakota

INTRODUCTION

Chairman Treen and Members of the Garrison Diversion Unit Commission, my name is Nathaniel P. Reed, Chairman of the Executive Committee of the Board of Directors of the National Audubon Society. Once again, I am pleased to be here to testify on behalf of the Society.

Mr. Chairman, let me begin by complimenting you and the Commission members for the excellent job you have done so far. The responsibilities given you by the Congress were large and varied, and you were given little time to carry them out. The National Audubon Society wants to extend its congratulations to you for the excellent job you have done under very difficult circumstances.

Since this Commission was created, Audubon has put away its press releases, legal briefs, and vote counts and brought our technical people forward in a genuine effort to find workable solutions. We have done this with the expectation that alternatives would be proposed to meet the contemporary water development needs of North Dakota. We would hope that all the other parties involved in this controversy would share this interest in finding realistic and workable solutions.

THE PRELIMINARY FINAL REPORT

Mr. Chairman, we have thoroughly reviewed the Commission's Preliminary Final Report on Garrison. We have undertaken this review with the attitude that Audubon should take a reasonable and constructive position with respect to the Commission's proposal. We have reviewed the Commission proposal in this light, and are prepared to endorse it. However, I must tell you that there are several elements of your proposal which are of paramount concern to us. I would like to discuss each of these issues.

First, we continue to be very concerned by the proposed irrigation and drainage in the New Rockford service area and the adverse impact that this will have on the area's high density wetlands and waterfowl populations. In addition, the New Rockford area also poses the potential for biota transfer into the Hudson Bay Basin. The staff has prepared issue papers on this matter and alternatives to developing this specific area are available. We recommend these alternatives be adopted.

Second, we are concerned about the very high cost of irrigation which will total more than $6,000 per acre or $1.6 million for each of 400 irrigated farms. We strongly believe that subsidies of this magnitude raise very difficult questions of equity and fairness for other farmers in North Dakota and throughout the country.

Third, we feel the Commission's preliminary report provides only a minimum level of protection for the James River Valley. We would prefer to see more irrigation areas located adjacent to the Missouri River rather than the James River. We believe it is important that no changes be made in the report which would further threaten environmental integrity of that area. It is essential that flows down the James River be kept within limits which will protect the fragile ecosystems in the area.

Mr. Chairman, under any other circumstances, these concerns would cause Audubon to oppose the Preliminary Final Report. However, the National Audubon Society Board of Directors has concluded that we must come together with the other interested parties to see if we can put an end to this long-standing controversy. We do not like the New Rockford service area or the amount of irrigation in the James River basin any better now than we have in the past. But the Commission's proposal, which omits both Lonetree and Taayer Reservoirs, is vastly preferable to the authorized project plan.

Accordingly, Mr. Chairman, the National Audubon Society Board of Directors has voted to support the Commission's Final Report, if it is consistent with the Preliminary Final Report.

The proposal recommended by the Commission is a compromise. It doesn't have everything we want. It requires that all interested parties accept change, but even as I say this, I must add that the changes and modifications you have recommended should be viewed as a genuine opportunity to provide greater development benefits to the people of North Dakota while recognizing natural resource values.

STATUTORY DIRECTIVE

Mr. Chairman, as you approach these problems, it is important to remember that this Commission was created by Congress and given very unusual and extraordinary authority. The Congress was seeking your help in resolving the long-standing controversies that had plagued funding of Garrison for well over a decade. The Congress not only directed you to develop workable solutions, but it directed that these solutions be immediately implemented.

It is important to remember what the Congress said. It said that the Garrison Diversion Unit, as authorized, raised "significant issues of economic, environmental and international concern" and that there were "municipal and industrial water resource problems in North Dakota that are presently unmet." In addition, there are "irrigation and agricultural water needs in areas which cannot be met by the Garrison Diversion Unit as presently authorized."

More importantly, the Congress directed this Commission to "examine the water needs of North Dakota and propose development alternatives which will lead to the early resolution of the problems identified." I would like to emphasize that the Congress was seeking "alternatives" which would lead to "early resolution of problems". The Congress had obviously tired of the unending controversy and it wanted resolution of the problem and finality to the conflict.

We have participated in this process with those words in mind. We have made significant and fundamental changes in our position. Throughout this process we have repeatedly modified long-held positions, and did so in an effort to bring about realistic and meaningful water development to North Dakota by finding fair compromises to the series of issues that have persisted over the years.

STATE OF NORTH DAKOTA PROPOSAL

Mr. Chairman, the Garrison Diversion Unit Commission is now holding its last meeting. If we are all lucky, this Commission will conclude its formal business by Saturday.

At this eleventh hour according to press accounts, the State of North Dakota, representing the Conservancy District, has submitted yet another proposal for a Garrison Diversion project. We do not believe it is timely for this Commission to consider an entirely new proposal. The Commission thoroughly analyzed 25 alternatives and their related building blocks in its Interim Report. The Commission has made its preliminary finding and tentatively selected its own alternative.

I would like to point out that this represents the fourth time this year that the State of North Dakota and the Conservancy District have advocated a new proposal to "solve" the problems of Garrison. For example, the District has always supported the one million acre plan (Alternative 17 in the Interim Report), and they have pushed for development of the initial phase of it, which would provide 250,000 acres of irrigation (Alternative 2, Interim Report) which, of course, is the currently authorized project. Early this year the State and the Conservancy District urged funding by Congress for phased development of the implementation of the 250,000 acre plan. This plan, known as the

85,000-acre Phase I plan (Alternative 5, Interim Report), would build the principal supply works, but provide only a small amount of the proposed irrigation at this time.

After this Commission was established, the phased development approach was quietly dropped and in its place, a new plan was developed. This plan called for the development of river basin sub-units, using the currently authorized features. There were two versions of this plan presented to the Commission. The first, a 165,000-acre plan (Alternative 10), concentrated irrigation in the Missouri and James Rivers. The second, a 303,000-acre plan (Alternative 11), incorporated irrigation in all four river basin drainages.

The Commission should understand that the fundamental distinction between all these plans, and also the latest plan, is the length of time required to construct the features and the sequence of development. They are all essentially identical. These plans flatly ignore even the existence of the problems that led to the creation of this Commission by Congress in the first place.

This approach is fundamentally inconsistent with the enabling legislation; specifically, it fails to meet the Congressional directive to "propose development alternatives which will lead to the early resolution of the problems identified." Stretching out the problems of Garrison, or postponing them, is not a responsible course of action.

Let me outline the specific concerns the National Audubon Society has about the Conservancy District's latest proposal.

With respect to irrigation, this proposal is nothing more than a reconfigured version of perserving the authorized project. Lonetree is, of course, included and with it the basic conflicts remain. Reducing the amount of irrigation, as this plan does, is little more than a short term adjustment. There are no substantive changes to the development plan. Doubling the irrigation in the James River basin creates new problems, and imposes serious environmental problems throughout the basin. This plan perpetuates the authorized project and does nothing to resolve the conflicts. It is unacceptable to us. Nor do we believe that this development plan will be accepted in the Congress.

Costs are seriously understated, by as much as $100 million or more, and the number of North Dakotans receiving project benefits is substantially reduced.

It is interesting to note that the latest proposal eliminates almost all the M&I service proposed by the Commission and does so in return for Lonetree. This Commission heard from many North Dakotans at the Commission hearings about the need for quality M&I service, determined the need was valid, and designed a comprehensive system to meet those needs. The State, presumably to reduce the overall cost of the revised proposal, eliminated 18 of the 20 proposed M&I delivery systems.

This action contradicts the State's own position on the matter. After the Bismarck hearings, the State published its 1984 Plan for Development. This new plan revised the state's development priorities, and added M&I water service to some 111 cities and towns.

However, in the proposal announced in the past several days, the State has dropped virtually all this proposed development. The State and the Conservancy District took this action after the Commission made a finding in the December 5 report that "municipal, rural and industrial systems for treatment and delivery of quality water should be incorporated as a major feature of this plan".

By eliminating M&I water service, the State and Conservancy District are making it a bargaining chip to preserve an objectionable and unnecessary project feature -- Lonetree Reservoir. This proposal will effectively deny benefits of Missouri River water development to more than a quarter of a million North Dakotans. The irony, of course, is that the development proposals deleted were precisely those previously advocated by the State 90 days ago. In the meantime, the Commission did a thorough review and found that 186 towns fail to meet the state and federal drinking water quality standards.

Mr. Chairman, we believe there are two central issues of primary importance before the Commission at this time. The first involves the matter of the commitment to North Dakota and the second involves Lonetree Reservoir.

THE COMMITMENT TO NORTH DAKOTA

It's almost impossible to have a discussion of Garrison without addressing the federal government's commitment to North Dakota. In part, this Commission was created by Audubon's recognition of that critical and important commitment. On June 1, the President and Chairman of the Board of Audubon sent a letter outlining Audubon's change of position to Governor Olson, Senators Burdick and Andrews, and Congressman Dorgan stating:

> In the past, we have opposed the project and challenged its very premise. We now recognize and accept the position of North Dakota that it is entitled to compensation for the acreage inundated by the creation of the Garrison dam and the formation of Lake Sakakawea as well as that of Lake Oahe. Further, we recognize and accept that North Dakota, by its participation in and support of the Pick-Sloan plan, has waited almost 40 years for project benefits.

This matter came up at the first meeting of the Commission, last August. When asked by Commissioner Bellmon to cite the language of the "so-called promise," Joseph Marcotte, the Bureau of Reclamation's Regional Director, admitted that they were unable to find any specific statutory basis for the commitment. According to Marcotte, "we have searched rather extensively, and we have not found language other than the fact that there was an agreement to support it." That is, there is no place in the law where the commitment is explicitly set forth. The Commission staff, addressing the same question, agreed with Marcotte.

We attempted to make it clear last June that the issue of entitlement for North Dakota was now moot in our minds. We did so at the beginning of the process, and have continued with that position. Most recently at your hearings in Fargo, you queried both Dr. Glenn Paulson, the Audubon officer in charge of our effort, and me on this point. We believe the issue should be settled in everyone's mind. Audubon again reconfirms its position as stated in the above-quoted June 1, 1984 letter.

However, it is clear that the question has remained prominent throughout the life of the Commission, and that you are continually pressed, because of the commitment, to "up the ante" in your final recommendations. If you continue to be pressed, then Audubon believes that other related Pick-Sloan benefits, benefits already received, should be considered when addressing the matter of North Dakota's entitlement to additional benefits from the Pick-Sloan project. Consider the following:

(1) North Dakota actively wanted the construction of Garrison Dam. Remember, construction began only a few years after World War II ended and the public works dollar in a rural state was a big boost to the local economy.

(2) Frequently overlooked when considering the state's entitlement to compensation was that the lands acquired (not

taken) were paid for. All together, the Army Corps of Engineers paid more than $20 million for this land -- and those transactions occurred more than 30 years ago, in the early 1950s. If that payment were indexed to the present, that amount would be $300 million.

(3) A large lake was created behind Garrison Dam and today, Lake Sakakawea provides large numbers of visitor-days of recreation and millions of dollars in recreation-based revenues. The secondary benefits rebound throughout the local economy. According to a recent report from the Corps, in FY 83 the annual project visitation was 2,580,600 people.

(4) Garrison as authorized fails to provide benefits to any of the counties impacted by the inundation of the river bottom lands when Lake Sakakawea was formed.

(5) Garrison Dam provides the generation of low cost power for the region. In the past two decades, the creation of the dam and reservoir has created enormous quantities of inexpensive power serving North Dakotans throughout the state.

If the Conservancy District and other project proponents insist on further debating the issue of entitlement with the goal of increasing the payoff, then Audubon recommends that the Commission take a closer look at these five matters before reaching its final decisions. For its part, Audubon is and has been prepared to concede on this issue, to discount these already-received benefits, and move forward.

LONETREE: AN UNNEEDED FEATURE

There is no issue more difficult before this Commission than Lonetree. The Commission correctly deleted it in accepting the Bellmon motion two weeks ago. It was a sound resource management decision on November 28 and when you cast your final vote here in Minot, we ask you to reaffirm that decision.

In all the backroom and private discussions, we have been asked repeatedly to "trade" Lonetree for Taayer or some other set of conditions, with the overt suggestion that this is the correct way to divide the political pie. For some people, this undoubtedly has some attraction. When pressed, many of North Dakota's political and water development leaders admit that Lonetree is a symbol. The need for it is more symbolic than real, for many of the alternatives you have analyzed.

Audubon believes the inclusion of Lonetree is substantively unacceptable and that a Garrison project with a Lonetree Reservoir, a reservoir at any size, is not an acceptable solution. Furthermore, we believe the entire conservation community -- state and national -- agrees with us.

Overall, we believe that to consider the issue of Lonetree in the abstract is fundamentally shortsighted. We ask you, in considering Lonetree, to first determine the benefits to be realized by its construction. We believe the benefits are very few in number, and can be realized only at a great cost -- in both dollars and natural resources. Lonetree Reservoir is not an end unto itself. It is not a stand-alone feature. It should have a purpose that can be met in no other way; this should be and has been the focus of your evaluation.

By now, you are all aware of the Conservancy District's campaign for a reservoir in the Lonetree Valley. We ask that the emotionally charged pleas be replaced with a rational evaluation of this reservoir.

The following is an engineering, economic, operational, and policy discussion of Lonetree.

(1) Lonetree Reservoir -- Perpetuates the Garrison Issue: Audubon entered the Commission process with the expectation that this process would assist all parties in achieving a permanent resolution of this matter. The inclusion of Lonetree Reservoir, even a lower level one, will prohibit any form of acceptable compromise.

(2) Lonetree Reservoir -- No Longer Essential: To carry out the Commission proposal, Lonetree is not needed. Water can flow from McClusky Canal to Sykeston and the Lonetree Sand Filter without the need for Lonetree Reservoir. The sheer volume of water passing through this part of the system under the Commission proposal is substantially reduced, offsetting the need for a reregulation reservoir.

(3) Fish Screen Required for Lonetree Reservoir: The U.S. government has formally promised the Canadians that if Lonetree is built, then a fish screen will be provided as the first line of defense to the transfer of undesired fish species. The up-front capital cost is presently $40 million. Opertional costs are unusually high, with estimates ranging from $1.5 million to $3.0 million annually. Over the life of the project, the fish screen has been estimated to cost $240 million -- a shade under a quarter of a billion dollars.

(4) Lonetree Reservoir -- Impacts on Refuge and Wildlife Habitat: The creation of Lonetree, even a "baby" Lonetree, will flood the Sheyenne National Wildlife refuge. The bottom lands of the refuge are at 1602 elevation. A 1608 reservoir pool puts the entire refuge under 6 feet of water. This unique valley and the important refuge in it are situated in the heart of the flyway path. The Lonetree Valley is both a staging and nesting area for innumerable species of waterfowl and other migrating birds.

(5) Lonetree and International Conflict -- The creation of Lonetree Reservoir perpetuates international conflict with the Canadians.

The potential for biota transfer is greatly enhanced by both expanding irrigation into the Hudson Bay Drainage and even by the more specific threat of bait bucket transfer. Instead of resolving these conflicts with the Canadians, Lonetree Reservoir perpetuates it.

(6) Lonetree Reservoir is not needed for M&I: Lonetree is not needed for the M&I system in the Commission proposal. In particular, it's not needed for the delivery system to the New Rockford Canal.

(7) Lonetree Reservoir -- Costs to Date: Attempts have been made repeatedly to project Lonetree Reservoir as almost built, and that the sunk costs mandate its completion. These descriptions are highly misleading. Lonetree is far from complete. According to Bureau documents, the total cost of Lonetree as of January 1984 is $50 million. Through September 30, approximately $29 or $30 million has been expended. However, at least one-third of those expenditures -- or about $10 or $11 million -- has been expended, not on construction, but on land acquisition. That land is a recoverable cost.

Physically, there is no structure rising out of the ground to be abandoned. The only work to date has been the excavation down to the base of the proposed dam and the placement of a grout curtain (cement under high pressure infused into the ground) down to an additional 30 feet below the proposed base of the dam. Once done, the ground-cover was replaced and brought up to original contour.

The structure of the actual dam has yet to be built.

(8) Lonetree -- Significant Remaining Costs: To complete just the structure of Lonetree will cost the following:

Remaining Construction	$20.0 million
Mitigation	$7.5 million
Fish Screen	$42.5 million
Total *	$70.0 million

(9) Economic Cost Dictates Expansion -- A reduced overall project that includes Lonetree Reservoir is highly misleading. The Conservancy District's proposal for Phase I, or the 1984 plan, provides for all major reservoirs and other major project features with minimal irrigation areas. It's an uneconomic unit. With the major project features in place, it's obvious that project proponents will waste little time in seeking to expand the project into many of the most objectionable irrigation areas.

(10) Lonetree Reservoir -- Forecloses Options: At the Fargo meeting, the Commission adopted three principles to guide its work. The first principle adopted in the Approved Work Plan on November 20 in Fargo stated, "future opportunities must not be foreclosed."

Proceeding with Lonetree, at any level, violates that principle. It permanently takes away the option of maintaining the Lonetree Valley in general and protecting the integrity of the Sheyenne National Wildlife Refuge in particular.

Conversely, future options are retained by not proceeding with Lonetree Reservoir. If, sometime in the future, expanding Garrison can be justified, and the problems with expanding federally-subsidized irrigation in the James River Valley and in

* These figures assume no further increases in construction costs or in the cost of the fish screen. Both are estimated to increase, but the level of increase is not known at this time.

the Hudson Bay Drainage can be overcome, then the State of North Dakota, the Conservancy District and the Bureau of Reclamation can once again seek consideration of Lonetree Reservoir and the associated irrigation acreage.

(11) Lonetree -- Enforcement of Level not Possible: Assuming the Commission adopts a Lonetree at any of the suggested levels such as 1608, 1620 or 1630 feet, how would these levels be maintained? It's impossible to provide any valid assurance that any such level would be maintained. Yet such assurances are vital, especially as they relate to the international problems.

(12) Lonetree and Recreation: One of the justifications for Lonetree Reservoir has been the proposed fishing at the reservoir. Fishing in Lonetree remains a major objection of the Canadians. Overlooked in the deliberations of this Commission so far is that there are already fishing opportunities in the immediate area. The town of Harvey has a reservoir with fishing, less than 10 miles from the proposed Lonetree site. Recreational fishing is available now the area.

(13) Lonetree and Salinity: There are severe operational problems with Lonetree due to unacceptably high salinity concentrations, which now exist in Lake Audubon and the McClusky Canal. These problems are less serious and more easily managed with Sykeston. A large reservoir surface area will undoubtedly contribute to the salinity problem because of higher rates of evaporation.

(14) Lonetree -- Eliminates Agricultural Production -- Development of Lonetree would remove 18,450 acres of current cropland production -- or about the same acreage as in the West Oakes service area.

(15) Lonetree: A Conclusion: Lonetree is a battered symbol. It's an overstated and overrated symbol. Spokesmen for the water developers are telling the citizens of this state, the state legislature and this Commission that without Lonetree Reservoir there is no project. Nothing could be further from the truth. There's a viable billion dollar water development package on the table -- a program serving 375,000 North Dakotans with clean potable drinking water and providing more than 100,000 acres of irrigation service in the James River basin and along the Missouri River. There is no other western state that could even dream of having the M&I system presently proposed for North Dakota. It represents one of the most ambitious and progressive water development packages in the West.

It puts Missouri River water to work for the people in this state. Some adjustments and modifications are being proposed here today that we think are acceptable and desirable. With such changes, the conservation community will overwhelmingly support this project. However, because of its multitude of political, economic, engineering and operational problems, the conservation community, in North Dakota and nationally, will never support a Garrison Diversion Unit with a Lonetree Reservoir .

WHAT HAS AUDUBON GIVEN UP?

Some North Dakotans have said that this Commission has been "taken over" by Audubon. This is not the case. While we are pleased with the progress made and the direction taken, the Commission proposal represents a compromise for us. During the Commission process, Audubon has repeatedly modified its position on a number of issues. In addition, Audubon has given up a great deal. I would like to highlight some of the more important compromises we have made.

(1) Audubon has abandoned its position that Garrison should be deauthorized.

(2) Audubon has abandoned its position that Garrison be defunded by the Congress and agreed to the FY 85 funding request of $53 million, one of the largest appropriations ever.

(3) Audubon has explicitly agreed with North Dakota that the state is entitled to water development benefits from the Pick-Sloan plan.

(4) Audubon has withdrawn its long-standing objections to any Missouri River water crossing the divide into the Hudson Bay Drainage, now permitting water development benefits to occur in eastern North Dakota. Instead, Audubon has agreed to transferring Missouri River water across the divide through pipelines and other means, subject to acceptable treatment, and limitations on quantity.

(5) Audubon has agreed, as part of this water development proposal, to accept more than 100,000 acres of federal irrigation, notwithstanding the cost and lack of economic justification for irrigation, though we'd clearly prefer to see less acreage along the James River and more along the Missouri.

(6) More specifically, Audubon has reluctantly agreed to support irrigation along the James River.

(7) Audubon has agreed to support a billion dollar federal water development program for the state of North Dakota and the Bureau of Reclamation. We believe it to be unprecedented for a major conservation organization such as Audubon to lend its support to the completion of such a development.

(8) Audubon has agreed to the use of the authorized discount rate, 3.125 percent in lieu of the current discount rate which is in excess of 8 percent, for all features of the Commission's plan including the new M&I water service systems as provided in the act creating the Commission.

(9) Audubon has agreed to accept impacts on 5 National Wildlife Refuges and 10,679 acres of additional wetlands.

DOLLARS AND DUCKS

Throughout this process, there have been lines drawn and positions taken regarding economic development through enhanced agricultural production versus the demands of conservationists who want to stop progress to protect a handful of ducks. While I don't recall these words being uttered before this panel in official session, they certainly dominate the "hall talk" and have surrounded this matter for years.

This issue should be addressed because it's a valid matter. Ducks are big business in this state and throughout the entire flyway. The tourism, recreation, and hunting dollar in this state is the basis of a major industry.

Millions of dollars are spent in North Dakota annually as a major part of the hunting, recreation and tourism industry. The resource attracts hunters and waterfowlers from around the nation and even the world. These people buy everything from hunting equipment to meals, spend money in hotels, gas stations, restaurants, and food markets. The secondary benefits of that tourism dollar, like the same benefits from agricultural production, rebound through the local economy.

MITIGATION

The direction taken by the Commission on mitigation is refreshing. Instead of seeking enormous mitigation costs and a large mitigation program, the Commission has adopted and implemented the first rule of mitigation -- avoid the loss in the first instance.

By taking this direction, the Commission is able to substantially reduce the remaining cost of mitigation substantially, to less than $20 million from the original $100 million. A greater percentage of the dollars spent on Garrison will be devoted to actual development and construction rather than on acquisition of replacement lands, fish screens and other non-productive expenditures.

When mitigation is necessary, the Commission has recommended using the formula of acre for acre, with attention to ecological equivalency. We strongly concur. (We note that this commitment is stated more strongly in the text than in the Executive Summary of the Preliminary Final Report. We urge that the Executive Summary be amended to reflect the full text.)

This approach makes far more sense, imposes burdens on far fewer landowners, and permits a greater percentage of dollars spent to be devoted to development.

THE PRELIMINARY REPORT-- THE COMMISSION PROPOSAL

I would like to make several general observations about the preliminary report which describes the Commission recommendation, providing details as to how the new Garrison project would be implemented.

We would call to the Commission's attention that there is a major mistake in the description of the Commission's three principles found on page 2. The first principle, regarding the preservation of options has been changed and should be made consistent with the Commission adopted work plan. Other references to this in the report, such as on page 24, should also be corrected.

The Report states, beginning at the bottom of page 5, that the Commission recommends that the Secretary propose legislation to implement this plan. While we're not certain that this is necessary, it is clear that the Secretary has the option to submit legislation under any circumstances. We don't have a strong opinion on the legal aspects of the matter. However, much more importantly, the report goes on to state that if Congress fails to affirmatively act on such proposed legislation within a specified time, then the work of the Commission is null and void, and the Interior Department is directed to proceed with construction on the currently authorized project. We believe this provision is inappropriate and strongly recommend its complete deletion. It sets the stage for mischief. You and your staff have worked too hard to solve the tough problems Congress put before you to plant the seeds of your own undoing.

On page 15, the Commission recommends that Canada and the US meet twice a year to examine and consider the possibility of expanding irrigation in the Hudson Bay Drainage. While we certainly have no objection to discussions, we would offer some comments on the timetable proposed. It will take approximately 10 years to construct the Commission's plan and make it operational. In many instances, that is much sooner than some of the development scheduled under the authorized plan such as, for instance, the Souris Loop area.

It seems to us that to accelerate discussions prior to the construction of most of your development plan is not necessary.

We would recommend that prescheduled talks be recommended at the conclusion of the recommended construction or at periodic intervals, such as every 36 months, would be adequate for the next few years. To insist on talks before the Commission plan could even be fully evaluated and scheduled for implementation is undesirable.

In the past week, we have heard charges that the Commission plan is not functionally operational, that it will not work without Lonetree. We don't believe these charges are accurate. It is our understanding that the Bureau of Reclamation assisted the Commission in preparing the design and engineering of the Commission proposal. It is our further understanding that, when asked by the engineering staff of the Commission, their Bureau counterparts have concluded that the plan is feasible. It is engineeringly feasible to operate. The necessary contingenices are incorporated.

Audubon has reviewed these claims with the Commission staff and concluded that these concerns, while valid inquiries, are not significant enough to divert you from the course you charted so clearly on November 28th.

The question is a valid and responsible one. Will it work? There is every indication that it will.

COMPARISON OF THE PLANS

The Commission Report provides basic information allowing a comparison of its plan with the authorized plan.

	Commission Plan	Authorized Plan
(1) Benefits	108,000 acres (Irr.) 413 farms	250,000 acres 868 farms
	130 Towns (M&I) 376,000 people	14 Towns (M&I) 53,000 people
(2) Cost	$1.0 Billion	$1.3 billion
(3) Enviromental Impact	Minor	Major
(4) Construction Time	11 years	22 years
(5) Land Acquisition	47,000 acres	128,000 acres

It's obvious that waters of the Missouri River can be put to use for more North Dakotans under the Commission plan than under the authorized plan.

Irrigation is made available to more than 400 of the 800 farms in the authorized plan, and M&I water will be made available to almost 400,000 North Dakotans, or about two of three citizens in the entire state. Instead of 14 towns, almost ten times that many will be served. The Commission plan permits more North Dakotans to benefit from the Pick-Sloan plan and the large federal investment that will be made.

This development can occur without major environmental conflict. While problems remain to be sure, those problems, on balance, are sufficiently reduced in scope and magnitude to be manageable.

Instead of waiting for almost a quarter of a century to construct and operate the authorized plan, the Commission plan can be constructed and made operational in half the time.

Land acquisition is dramatically reduced, not just for right of way access, but for mitigation as well.

CONCLUSION

Two days after the Commission last met, the Board of Directors of the National Audubon Society held a meeting at which the Commission's proposed water development program was thoroughly reviewed. A resolution was adopted, unanimously, to support and endorse this proposal.

We do so with qualifications that have been spelled out in our testimony. On balance, this Commission has come a long way toward resolving problems that have escaped resolution for more than a decade, and the end of the road is within sight.

Putting a resource to work for the people of a region has been and remains a worthy and noble goal. The people of North Dakota have recognized the potential of this river and have sought to harness it for their benefit.

While the authorized plan provides no project benefits to those counties impacted by the inundation of river valley, the construction of Garrison dam and the creation of Lake Sakakawea, the Commission plan in contrast does provide benefits to many of the originally impacted counties.

While the authorized plan provides few benefits to the Indian tribes so severely impacted by the creation of the dam and lake, the Commission plan provides for irrigation and M&I benefits to the three impacted Indian reservations.

While the authorized plan provides benefits only to a handful of farms in the state, the Commission plan provides benefits to many more North Dakotans.

While the authorized plan perpetuates political conflict, the Commission plan provides a plan that can lead to resolution.

While the authorized plan has divided North Dakotans, the Commission proposal permits development to move forward without that division.

Most importantly, a plan has been fashioned that can be taken to, and supported in, the Congress, and that will be a source of pride to the State and people of North Dakota, to the West in general, the Department of the Interior, and to the conservation community.

It is a compromise. All interests are required to make adjustments and accommodations. Audubon has.

Our pledge, made here and made publicly, is to go before Chairman Bevill of the House Energy and Water Appropriations Subcommittee, and Senator Mark Hatfield, Chairman of the Senate Appropriations Committee, and actively support this proposal. Should additional authorizing legislation be required, we will actively work to enact such legislation.

Attached to this testimony is a copy of the formal resolution adopted by the Board of Directors, National Audubon Society, regarding the action taken by the Commission. In addition, we are submitting a copy of the letter sent by Mr. O'Brien, the Chairman of the Board of Audubon to Chairman Treen.

These documents speak for themselves. Audubon will carry out the pledges in them.

Thank you. My colleagues and I would be glad to answer questions.

ADDITIONAL ISSUES

(1) M&I Pricing. We believe the water should be reasonably priced to promote maximum development of the Commission's proposal. As presently written, it would severely constrain development of these water systems. The special and unique circumstances that exist in this situation necessitate a modified pricing system, such as a grant or low-interest long term loan.

(2) Lake Audubon Management. A number of management issues have been identified during Commission proceedings. Audubon believes the Commission should recommend that the Secretary direct the Bureau of Reclamation and the Fish and Wildlife Service to fully review the level of the lake to determine if it can operate the Commission development proposal at a lower level.

(3) Southwest Pipeline Project. The Southwest Pipeline Project was deleted from consideration at the request of the State of North Dakota. Audubon has no objection to the inclusion of this multi-county project.

(4) McClusky Canal Seepage. For some time, there has been an on-going problem along the route of the canal due to seepage, causing problems for adjacent landowners and wetlands in the immediate area. Bureau efforts to date to address this problem have been inadequate. The Commission should direct the Secretary to correct this problem.

(5) Pipestem Dam and Reservoir. The Commission directed the staff to determine if irrigation and M&I water for the lower James River could use the Pipestem Creek. We understand

that using Pipestem is feasible and service for LaMoure and West Oakes should be considered by this route. It would necessitate a pipeline from the McClusky Canal, but if the New Rockford area were deleted, there would be offsetting costs.

(6) New Rockford -- New Rockford Extension. The New Rockford irrigation area is physically located in the Hudson Bay Drainage and poses a potential biota transfer problem. Drainage back to the Missouri River side of the divide is recommended in the Commission report through Robinson Coulee, an area of high density wetlands. We would ask that the Commission give consideration to deleting the New Rockford area, and substituting areas either along the Missouri River, or if need be, acreage from the New Rockford Extension. It should be noted that the New Rockford Extension is located in the Missouri River drainage.

(7) James River Wildlife Refuges. There are three major refuges along the James River that will be adversely impacted by the Commission development proposal, including the valuable and important Sand Lake Refuge located just below the North Dakota - South Dakota border on the river. The Commission should recommend to the Secretary that a comprehensive management plan be created to protect the refuges, including by-pass channels as appropriate.

(8) Project Feature Sizing. Project features in the Commission Plan should be down-sized where possible and appropriate.

(9) Operating Criteria -- Pipestem and Jamestown Reservoirs. The Commission should direct that modified operating criteria be created to assist the implementation of the Commission Plan.

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

STATEMENT OF
LYNN A. GREENWALT
VICE PRESIDENT FOR RESOURCES CONSERVATION

BEFORE THE
SUBCOMMITTEE ON WATER & POWER RESOURCES
COMMITTEE ON INTERIOR & INSULAR AFFAIRS
U.S. HOUSE OF REPRESENTATIVES

FEBRUARY 26, 1985

Thank you for the opportunity to present the views of the National Wildlife Federation (NWF) on the report of the Garrison Diversion Unit Commission. Accompanying me today is Edward R. Osann, Director of NWF's Water Resources Program. As you know, the Federation is America's largest conservation organization, with affiliates in 51 states and territories and some 4.2 million members and supporters nationwide. We congratulate you, Mr. Chairman, on your assumption of the chair of this important subcommittee, and look forward to working with you on your new capacity on this and similar efforts to improve the Federal water resource development program.

I. The Commission Plan is a commendable attempt to fashion a workable political compromise to the Garrison Diversion controversy.

Mr. Chairman, the work of the Garrison Diversion Unit Commission is a milestone in the evolution of the Reclamation program. The Commission verified the contention of the program's most vocal critics that there are better ways of expending scarce financial and natural resources than in pursuit of an authorized project plan from decades gone by. More benefits to more people can be achieved, with less damage to the natural environment -- if only we have the will to look, and the patience to carefully review all previous assumptions. This is the lesson from the Commission's work, and the sooner it is applied throughout the Reclamation program, the greater the benefit to the West and to the nation.

In our view, the concepts embodied in the Commission Report constitute the only viable framework for a compromise solution to the Garrison controversy. On balance, it is a good compromise, and the National Wildlife Federation supports it. However, this is not to say that the Commission Plan is our idea of a truly outstanding Reclamation project. It is not.

The Commission Plan is acceptable to the Federation only in the context of a compromise settlement to the Garrison controversy. In any other context this undertaking would be highly questionable. However, the Federation is prepared to work within the overall framework of the Commission's Report if the State of North Dakota is prepared to do the same.

It is no secret that considerable friction has arisen between state officials and the U.S. Fish and Wildlife Service in recent years. We believe that much of this has been attributable to the state's uncertainty over the Garrison Diversion project, and an unwillingness, when faced with such uncertainty, to see water resource development options foreclosed as a result of various programs of the Service.

We believe that it is time to close the book on these disputes in light of the Commission's comprehensive review of the state's contemporary resource needs and the positive program of water development proposed by the Commission. We urge that the implementation of the Commission's plan be tied to the timely resolution -- in a manner mutually satisfactory to the state and the Service -- to the following issues:

- o the state-imposed ceiling on the Service's wetland acquisition;
- o state-requested delineation of all tracts covered by pre-1976 easements held by the Service;
- o enforcement of existing state law related to wetland drainage.

For the benefit of those who may not view the Commission Plan as a compromise, I would like to enumerate the strengths and weaknesses of this proposal from our perspective.

Our problems with the Commission Plan include the following:

- o The plan proceeds from the premise that North Dakota "deserves" a Federal water project as a result of previous reservoir construction. We view this as a debatable premise, and reject the inference that such an entitlement should go forward without regard to contemporary evaluations of need or feasibility;
- o The plan would continue negotiations and studies on the use of Missouri River water for irrigation in the Hudson Bay watershed. We would prefer this issue be laid to rest permanently at this time;
- o The plan includes 131,000 acres of irrigation service, which, of course, includes an array of associated environmental impacts. None of the irrigation has been shown to be economically feasible, and without

government intervention these environmental impacts would be avoidable, because the irrigation would not have been built;

- The plan proposes to retain the Lonetree Reservoir site in public ownership, and to include existing wetlands in this area as a credit against other mitigation requirements resulting from the construction of other features. To count such existing wetlands as credit toward mitigation is not sound logic; and,
- The plan would convey untreated Missouri River water into the Hudson Bay watershed in the New Rockford area, relying upon engineering features to recapture runoff and return these flows to the Missouri watershed through Robinson Coulee. We question the need for incurring this risk of biota transfer.

In contrast with these drawbacks, the Commission Plan contains the following desirable elements:

- Acquisition and preservation of Kraft Slough;
- Shelving of Lonetree and Taayer Reservoirs;
- Less overall damage to wildlife habitat, and mitigation of project-induced habitat losses on an acre-for-acre basis, concurrent with project construction;
- Greater emphasis on municipal and industrial water supply, benefiting more people with fewer environmental impacts;
- Reduced impact on the National Wildlife Refuge System;
- Maintenance of James River flows within levels that can be accommodated without environmentally devastating channel work; and,
- Limitations on Secretarial discretion to further modify the basic elements of the Commission Plan.

We believe the overall concepts of the Commission Plan represent a core set of features and policies that can command a consensus for early implementation.

II. The Federation urges the subcommittee to give special attention to several key issues to safeguard the environment, improve project financing, and facilitate timely implementation of the Commission Plan.

A. Status of Lonetree Reservoir.

The Commission Plan recommends that construction of Lonetree Reservoir be deferred pending a demonstration of need and the satisfactory conclusion of consultations with Canada. At this juncture, the definition of "deferral" is imprecise, to say the least. On December 17, Sen. Mark Andrews was quoted by the Associated Press as saying:

> "It's held for possible use, but that really gives us the opening for the possibility of, by amendment, adding Lonetree back into the package." Such an amendment's timing could be "this year, next year, or a couple of years down the pike," the Senator said.

On January 3, the Garrison Diversion Conservancy District approved a policy statement urging the Secretary of the Interior to proceed immediately to a formal determination of the need for Lonetree. And on February 4, the Bureau of Reclamation submitted its FY86 budget request, depicting a $1.8 billion Garrison Diversion Unit, an amount equivalent to the sum of the originally authorized project and the Commission Plan.

Mr. Chairman, a $1.8 billion, 320,000 acre project does not constitute a compromise solution to the Garrison controversy. We believe that it is desirable for the state to retain options for the future, but we believe those options should include the option to preserve, as well as the option to develop.

B. The integrity of the National Wildlife Refuge System.

The Commission Report states that mitigation of impacts to National Wildlife Refuges would be implemented in accordance with the National Wildlife Refuge System Administration Act and its regulations, notwithstanding that the act lays out no substantive criteria for mitigation. The operative language of the Commission's proposed recommendation (p. 4) could be read to place important responsibilities for mitigation decisions with the Bureau and the state, rather than with the Fish and Wildlife Service.

We believe that neither the Garrison Diversion nor any other water project should be allowed to diminish the productivity of the National Wildlife Refuge System. To do otherwise would set an unacceptable precedent for Refuge System operations nationwide. We urge the subcommittee to support this clear standard.

C. Fish and Wildlife Mitigation.

The damages that will result to fish and wildlife habitat from the construction of Garrison Diversion have been central to the controversy from the beginning. The Commission Report erroneously allows several thousand acres of existing wetlands to be credited against the project's mitigation requirement. The subcommittee will also receive additional testimony today that the Commission Report further underestimates the wetland impacts of the plan by an additional 6,500 acres. These figures should be carefully evaluated by the subcommittee. We believe that the appropriate standard for all Federal water resource projects should be the provision of biologically sound measures for mitigation of habitat losses, concurrently with the construction of other project features. For Garrison, we further believe -- as did the Commission -- that mitigation requirements should be computed on an acre-per-acre basis.

Mr. Chairman, waterfowl production in North Dakota is simply too important for deficiencies in Garrison's mitigation plan to go overlooked. Cutting corners at this time would be short-sighted indeed, simply because the Garrison controversy cannot be resolved by papering over identifiable deficiencies in the mitigation of wetland habitat losses.

D. The James River corridor.

The Commission's proposed recommendation on the James River Conveyance System is too broad. Conservationists place very high priority upon the retention of the James River riparian corridor without substantial alteration. Since the Commission Plan is intended to be consistent with this objective, the recommendation for implementation of "those channel changes and mitigation measures ... which are determined necessary to use the James River as the principal southern conveyance system" may have unintended consequences if taken out of context. The channel capacity of the riparian regime should be accepted as a limiting factor, and project releases managed accordingly.

E. Options for financing Municipal and Industrial water supply.

We encourage the subcommitee to consider the terms available to prospective municipal and industrial water users under the Farmers Home Administration, the Water Supply Act of 1958, and the WEB Rural Water Development Pipeline authorization (PL 97-273). We encourage North Dakota communities to make full use of these programs.

It should be noted that projected M&I costs are far from firm. As more refined proposals emerge from feasibility-grade studies in the near future, repayment responsibilities may well appear more manageable than they do now. The Commission's current cost estimates can be viewed as upper bounds, subject to downward revision, since all costs were based upon facility size and operation necessary to provide an entirely new water supply for 100% of the current and projected usage by receiving communities. Such extensive M&I capacity augmentation may well prove to be unnecessary for many, if not most, of these communities.

F. Unsubstantiated Report Language.

Several critical issues arise from provisions in the final text of the Commission Report that are unsubstantiated in the public proceedings of the Commission. Three of these issues have major implications for the environment and should be addressed by the subcommittee. The James River Feeder Canal is shown in the Final Report to be built to a capacity of 1600 cubic feet per second (cfs). The Commission itself had corrected this error in earlier report drafts with an errata sheet issued December 10. By way of comparison, the authorized plan has a capacity of 450 cfs for this same canal.

The policy of shifting unused irrigation acreage from any part of the James River drainage to the West Oaks Extension area is shown as a footnote on page 33 of the Final Report, but was never discussed on the record by the Commission. Such a policy will compound the already difficult job of managing project flows without destroying the environmental values of the James.

Finally, the Final Report contains a recommendation that Sheyenne Lake National Wildlife Refuge be vacated (abandoned). Apparently this recommendation grew out of a staff interpretation of a Commission motion to proceed with completing land acquisition at the Lonetree site. However, during all the months of debate over the fate of Lonetree, no policy discussion made on the record by the Commission calls for the removal of Sheyenne Lake from the National Wildlife Refuge System. Future development options can be preserved without this drastic step, and to do otherwise would be to misread the fundamental causes of the Garrison controversy over the last two decades.

III. A supplemental proposal: NWF recommends that the Secretary study three North Dakota river segments for possible inclusion in the National Wild and Scenic River System.

The Commission has recognized that conservation is an important adjunct to development, and the State of North Dakota has specifically recognized scenic river designations as appropriate components of the State Water Plan. We urge that the subcommittee recommend study of three rivers where a scenic river designation would be consistent with the state plan. These are:

Missouri River, 86 river miles from the Interstate Highway 10 crossing west of Bismarck to the Garrison Dam;

Little Missouri River, 235 river miles, from its discharge into the Little Missouri Bay of Lake Sakakawea to the South Dakota border; and

Heart River, 106 river miles, from Heart Butte Dam to the Missouri River.

The Little Missouri has already been designated a state scenic river, and the 1983 North Dakota State Water Plan recommends the Heart River be so designated and the Missouri River be studied for potential designation as state scenic rivers.

Designation of these three river segments as study rivers for the national system will provide protection against incompatible Federal actions during the study period. This will insure that the unique qualities of these river segments, as recognized by the state of North Dakota, will not be impacted by dams, diversions, and other projects, at least until their potential for inclusion into the national system is determined. This study would be prepared in close cooperation with appropriate agencies of North Dakota, as mandated by the Wild and Scenic Rivers Act.

IV. The National Wildlife Federation will actively support the Commission's plan to resolve the Garrison Controversy.

In conclusion, we believe that the Report of the Garrison Diversion Unit Commission reflects a profound awareness of the need for change in the authorized project. The Commission struck a compromise -- one that placed greater emphasis on municipal and industrial water supply and reduced emphasis on irrigation, in the interest of finally bringing a project on line that will put Missouri River water to beneficial use in North Dakota. This is a compromise that we can support, Mr. Chairman.

Thank you for the opportunity to present these views.

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

April 12, 1985

The Honorable George Miller
Chairman
Subcommittee on Water & Power Resources
Committee on Interior & Insular Affairs
U.S. House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

At the conclusion of my testimony at the subcommittee's hearing on the report of the Garrison Diversion Unit Commission on February 28, two questions were directed to me to answer for the record. Please accept this letter in response to the subcommittee's request.

Management of Kraft Slough

Kraft Slough should be acquired in fee and managed by the Fish and Wildlife Service as part of the National Wildlife Refuge System. Due to its recognized significance, all or part of the area should also be considered for designation as a National Natural Landmark.

We recommend that those wetlands in the immediate vicinity that are hydrologically connected with Kraft Slough should also be included in the refuge. Uplands sufficient to provide nesting sites for ground-nesting waterfowl and other species should also be included. Based upon the resulting configuration of these essential components, we recommend that the tract be rounded out to avoid potential land management conflicts with private inholdings and to allow appropriate facilities for visitor access and control.

Wild & Scenic River Recommendations

As indicated in our testimony, the designation of portions of the Heart River, the Missouri River, and the Little Missouri River has been addressed in the 1983 North Dakota State Water Plan. The Little Missouri has already been designated a state scenic river, and the 1983 State Water Plan recommends that the Heart River be so designated and that the Missouri River be studied for potential designation. A copy of the 1983 State Water Plan is attached for the reference of the subcommittee.

It should also be noted that the Little Missouri River and portions of the Missouri River recommended for study in the state plan were also included in the National Rivers Inventory prepared by the National Park Service in 1982. Copies of the relevant pages are attached.

Mr. Chairman, we greatly appreciate the commitment to oversight and reform of the Reclamation program that you have demonstrated in the short time since you assumed the chair of this important subcommittee.

Sincerely,

Lynn A. Greenwalt

Lynn A. Greenwalt
Vice President
Resources Conservation Department

Attachment

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STATE NORTH DAKOTA

River	Physiog. Section	Other States	Counties	Congress. District	Segment Reach Description	Length	Outstandingly Remarkable Values								Narrative Description of Values
							Scenic	Recrea-tional	Geolog.	Fish	Wildl.	Hist.	Cult.	Other	
Pembina River	13b		Pembina Cavalier	At Large	Red River to Canadian Border	80	X		X		X				Much of the area is in a semi-wilderness condition; Pembina Valley and escarpment are part of the northeastern drift plain, containing most of the remaining forest in North Dakota; highly diverse wildlife; moose herd is being developed in area.

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STATE NORTH DAKOTA

River	Physiog. Section	Other States	Counties	Congress. District	Segment Reach Description	Length	Outstandingly Remarkable Values								Narrative Description of Values
							Scenic	Recrea-tional	Geolog.	Fish	Wildl.	Hist.	Cult.	Other	
Missouri River	13a		Burleigh Morton Oliver McLean	At Large	Square Butte Creek to Oliver/Mercer County line	44	X	X		X	X	X	X		One of few remaining free-flowing segments of the Missouri River; rated of critical importance by State for sport fishery; important wild turkey habitat; many historic and archeologic sites.
Missouri River	13a		McLean Mercer	At Large	Knife River to Garrison Dam	13	X	X		X	X	X	X		One of few remaining free-flowing segments of the Missouri River; rated of critical importance by State for sport fishery; important wild turkey habitat; many historic and archeologic sites.

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STATE NORTH DAKOTA

River	Physiog. Section	Other States	Counties	Congress. District	Segment Reach Description	Length	Outstandingly Remarkable Values								Narrative Description of Values
							Scenic	Recreational	Geolog.	Fish	Wildl.	Hist.	Cult.	Other	
Little Missouri	13b		Dunn Slope McKenzie Golden Valley Billings	At Large	Lake Sakakawea to Marmarth, North Dakota	235	X	X	X	X		X	X		Badlands topography provides unique scenic values, highly important for recreation; passes through 2 units of Theodore Roosevelt National Memorial Park important habitat for channel catfish reproduction; important paleontological discoveries.

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The Garrison Task Force

Richard Madson, Director

P.O. Box 1591
102 ½ First Avenue South
Jamestown, North Dakota 58401
(701) 252-5669

Testimony of Richard Madson Before the U.S. House Subcommittee on Water and Power Resources, Committee on Interior and Insular Affairs, Relative to the Final Report of the Garrison Diversion Unit Commission

Mr. Chairman, Members of the Subcommittee:

My name is Richard Madson, I reside in Jamestown, North Dakota, and I want to thank you for the opportunity to testify before your subcommittee here today.

I am representing three organizations here today: The Garrison Task Force, a grassroot coalition of individuals from throughout the nation who believe that the final recommendations of the Garrison Diversion Unit Commission need further refinement before they will represent justified water development and prudent use of tax dollars; the committee to save north dakota, inc., a coalition made up primarily of residents of North Dakota who oppose the Garrison Diversion Unit as authorized in 1965, and share a number of concerns over the Final Report of the GDUC; and The North Dakota Chapter of the Wildlife Society, a state-wide organization of professionals in the wildlife and natural resource field.

I serve as director of the Garrison Task Force, as past-chairman and a member of csnd, and as a member of the NDCTWS's Water Projects Committee and Garrison Diversion Subcommittee.

In addition, I am submitting for the Hearing Record a resolution concerning the Garrison Diversion Unit Commission Recommendations as passed unanimously at the annual business meeting of the Upper Missouri River Chapter of the American Fisheries Society, on February 22, 1985, a position statement and news release issued by the United Family Farmers of South Dakota relative to the GDUC's Final Report, and a resolution passed by the Missouri Breaks Audubon Chapter of Pierre, South Dakota.

I have worked full-time on the Garrison Diversion issue for nearly all of my professional career, beginning in 1972. I was first drawn into the issue while investigating charges of mistreatment by the Bureau of Reclamation of landowners living in the path of the project's McClusky Canal. I was shocked to find an agency of our government mistreating landowners as seriously as was the case during those opening years of project construction. For reference to that situation, I would call your subcommittee's attention to the fact that the situation led to investigative field hearings by the U.S. House Subcommittee on Conservation, Energy and Natural Resources of the Government Operations Committee, whose findings were made public in a report released on July 2, 1976.

While I understand that this hearing today is called to deal not so much with where Garrison has been, but rather where it might go from here, I nevertheless call your attention to the situation that first existed in project construction zones as part of a vow I made to farmers whose land was first taken for this project, in some cases over a decade ago, that the mistreatment they received would not be forgotten, if for no other reason then to help insure that it would never take place again during the course of water resourse development.

I call the subcommittee's attention to the fact that the Garrison project, as authorized in 1965, the authorization which still remains on the books and which would not be changed unless the GDUC Final Report is further amended, called for the taking of 5,000 individual parcels of land. Over 4,000 of those parcels remain to be taken. For the authorized project, 250,000 acres of land would be irrigated, but 220,000 acres of land, most of which is now in agricultural production, would be taken for all project purposes.

When the formation of the Garrison Diversion Unit Commission was announced, I voiced concern that the process would prove to be a Trogan Horse stuffed with bulldozers. I would have been very pleased had my prognosis been proved wrong. But the horse, if you will, is indeed full of bulldozers, and they are about to be unleased for construction that will cause massive environmental damage, destruction of good farmland, and disruption of a number of family farm units.

The Garrison Diversion Unit Commission has established a framework via which legitimate water needs in North Dakota might be met, as they pertain to development of municipal and industrial water supplies, and rural water systems. Unfortunately, the Commission also saddled that positive opportunity with some of the most expensive and least justified irrigation development in American history, with continuing, severe and unacceptable damage to a number of National Wildlife Refuges of international importance to migratory waterfowl, with increased damage to the James River of the Dakotas, and, worst of all -- with a clear route for project promoters to develop the authorized project!

Based on the criteria of number of floor fights in the U.S. House and Senate, Garrison is the most controversial water project in American history. The Garrison Diversion Unit Commission was established by Congress to find some means of resolving that controversy. Instead, as candidly stated in an "Open Letter To The Citizens of North Dakota" by Commission Chairman David Treen, dated January

16, 1985, the Commission "has advanced a water distribution plan for North Dakota, a plan that has not compromised the basic elements that may someday be used..."

It is precisely because these basic elements are still in place, that the Commission has not resolved the Garrison controversy.

The Commission has not recommended deauthorization of a single acre projected for development under the original project plan.

The Commission has not recommended deauthorization of Lonetree Reservoir. To the contrary, they have gone to great length to point out that "Lonetree Reservoir remains an authorized feature of the Commission Plan..." The Commission also established that no new authorization would be needed for construction of Lonetree. Indeed, following the final meeting of the Commission, before Commission members even had a chance to board their planes and return to their homes, North Dakota U.S. Senator Mark Andrews announced that he would seek an amendment in the Senate to restore Lonetree to the project. The Senator made specific mention of the fact that the reservoir would not require specific authorization from Congress, adding that the timing of any Lonetree amendment "this year, next year or two years down the pike, is a tactical decision" to be worked out among the state's congressional delegation.

Mr. Chairman, while those of us who have opposed the Garrison project for many years do not agree with the position of our Congressional delegation on this issue, we will give them credit for ingenuity, and we will not soon forget the time they successfully obtained a supplemental appropriation for the Garrison project by tacking it on to legislation providing for disaster relief for the Mt. St. Helens erruption. We are not willing to play Lonetree Roulette every time an appropriations bill comes before the Congress in the future. Project promoters are really telling us: 'because you are well organized now, we'll just build part of the project, retain the authorization for the rest, and wait until you aren't as well organized as is now the case.'

If this Subcommittee is to really begin the process of resolving the Garrison controversy, while meeting legitimate water development needs of North Dakota, you need to begin using the scalpel of deauthorization, beginning with Lonetree Reservoir, continuing with all project features and irrigation areas not included in the Commission's initial 130,940 acre initial project, and continuing with irrigation development and associated project features that would drain into the James River.

Such action would save over half a billion dollars, remove any additional damage to National Wildlife Refuges and the James River, resolve the international controversy once and for all, and, most importantly -- provide the opportunity to shift project emphasis to North Dakota's real need -- that of municipal and rural water development.

To be more specific, I urge that the proposed Sykeston Canal be replaced with a pipeline running from the McClusky Canal to the Sheyenne River, providing treated inflows of up to 100 cfs, thus retaining the possibility of providing Garrison water to the state's Red River Valley.

For those water systems that are projected to draw municipal or rural water system supplies from the James River, I propose a pipeline from the McClusky Canal to the headwaters of Pipestem Creek, a tributary of the James River. The volume of water needed for such flows would be greatly lessened with deletion of irrigation development, would avoid problems with Arrowwood NWR, and would remain within the normal channel capacity of the James River. I wish to bring to the special attention of this Subcommittee the fact that the "Pipesten Pipeline" alternative was studied, but rejected, by the GDUC. I have learned, however, that the field staff investigation of that alternative judged it to be feasible, a judgement that was reversed by the staff director without explanation. I urge this Subcommittee to obtain the original GDUC field staff investigations of that alternative. If they are not available, I urge funding and immediate reanalysis of that alternative.

In only slightly more than a month, those of us who place special value on our Dakota prairies will watch for the first crocus of spring, and wait for that special moment when wavering V's of migrating geese will appear overhead. Spring will also bring this year, however, the resumption of massive project construction on the Garrison project's network of open canals and project drains. If the project is modified so as to avoid major environmental damage, continued waste of tax dollars, and so as to shift emphasis to where it is needed - municipal water development - then the bulldozers the Bureau of Reclamation and the Garrison Diversion Unit Commission will soon unleash on our prairies will be building project features that are unnecessary and unjustified.

Pending refinement still necessary toward the GDUC's recommendations, I urge that existing construction contracts be frozen, and new contracts not let, until the major redesign still needed to render Garrison a senseable water project has been completed. I believe that redesign can be completed this year, and monies now appropriated but not spent can then be used for pipeline delivery systems providing municipal and rural water system development -- which is what we should have started doing in the first place -- twenty years ago.

Most of the Garrison project isn't constructed yet. It's not too late to save tax dollars, save productive farmland and productive wildlife habitat, and shift project emphasis to legitimate water development needs in the state.

***

committee to save north dakota, inc

Position Statement of the committee to save north dakota, inc. Relative to the Garrison Diversion Unit Commission's Final Report

"Historically, the committee to save north dakota, inc. has opposed the authorized Garrison Diversion Unit.

Although given no opportunity for input into the process that set up the Garrison Diversion Unit Commission, we nevertheless provided as much testimony and input to the Commission as we were allowed, hoping that a very bad water project might be replaced with a justified water project.

The project recommended by the Garrison Diversion Unit Commission is not acceptable. It still provides for major irrigation development, which will cost American taxpayers over $1.6 million per irrigated farm, to provide more surplus crops at a time when agricultural commodity prices are already severely depressed. North Dakota farmers, like their counterparts in the rest of the nation, are some of the best in the world. We don't need help growing crops, we need help selling our crops.

We are concerned that the Commission Plan does not recommend deauthorization of any original irrigation areas, leaving the door open for future expanded development. We are concerned that Lonetree Reservoir has been deferred, but not removed, as a project feature through the Commission Plan.

We recognize that municipal and rural water development potential is better under the Commission Plan than under the authorized project. We support municipal and rural water system development, provided that buried pipelines are used for the supply system.

If the Commission Plan cannot be modified to delete irrigation then we urge Congress, for the sake of the American farmer and all taxpayers, to deauthorize the Garrison Diversion Unit, and seek municipal pipeline development in North Dakota through separate programs."

(Adopted by the Board of Directors, csnd,
January 27, 1985)

UNITED FAMILY FARMERS, INC.
Box 523
Aberdeen, South Dakota 57401

FOR IMMEDIATE RELEASE:
FEBRUARY 9, 1985

FOR FURTHER INFORMATION CONTACT:
HAROLD SEATON (225-3192)
AREA CODE 605

UNITED FAMILY FARMERS DISPLEASED WITH RECOMMENDATIONS OF GARRISON COMMISSION

The South Dakota organisation which played the key role in the defeat of the Oahe Irrigation Project and in the promotion of the WEB Domestic Water Pipeline today announced that they are totally opposed to the recent recommendations of the Garrison Diversion Unit Commission.

UFF President Harold Seaton, an Aberdeen area farmer, said the changes recommended for the Garrison project would make its impacts on the James River in South Dakota even worse than would have been the case with the original project.

In releasing today a letter that he has sent to various national environmental groups and leaders in Washington, D.C., Seaton said that it is "hard to justify the incredible per farm subsidy of $1,650,953 that taxpayers would be asked to pay if the Commission plan ever became a reality. It is especially hard to justify at a time when the federal deficit is dangerously out of control, all major crops are in surplus, and grain prices are terribly depressed."

Seaton noted that the Commission's plan calls for the drainage of three times as many irrigated acres into the James River as were authorized in the original project. "This plan would cause severe flooding and degradation of water quality in South Dakota. We have no choice but to oppose this ill-conceived plan."

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UNITED FAMILY FARMERS

UNITED FAMILY FARMERS, INC.
Box 523
Aberdeen, South Dakota 57401

February 25, 1985

Honorable George Miller, Chairman
Water and Power Resources Subcommittee
House Interior and Insular Affairs Committee
1522 Longworth House Office Building
Washington, D. C. 20515

Dear Congressman Miller:

As the new President of United Family Farmers, I am writing you because you are the Chairman of a congressional committee that will play an important role in decisions regarding the Garrison Diversion project, and, frankly, because we need your help in getting our story heard.

The majority of our 2,000 members are farmers and landowners in the James River Valley in northern South Dakota. Our organization was instrumental in halting construction of the Oahe Irrigation Project, which would have been an environmental and economic disaster. We have played a major role in promoting and achieving the construction of the WEB Pipeline, which will meet the water needs of 30,000 people at a fraction of the cost of Oahe.

More recently, we have actively participated (to the best of our ability) in the public hearings of the Garrison Diversion Unit Commission, hoping to influence the proceedings toward a project that would cause less environmental damage and disrupt fewer farms in South Dakota than the original authorized project.

We have had a chance to review the Commission's Final Report. We are appalled at their recommendations. The negative impacts to South Dakota would be greatly increased over those of the authorized project. At a time when virtually everyone has become aware of the federal deficit and the threat it poses to our economic survival, the cost of Garrison would not be significantly reduced by the Commission's recommendations. With the one exception of Taayer Reservoir, construction of the project features that have generated the most objections from environmental and farm groups would not be precluded by the Commission Plan.

The Commission's proposal would cut the total cost of Garrison only from $1.3 billion to $1.1 billion. We do not believe this would be a major contribution to reducing the federal deficit. The primary reason for the Commission's failure to recommend a greater savings is their continued support for massive irrigation development in North Dakota.

It is hard to justify an investment from the federal treasury of $1,650,953 per farm (or $5,414 per acre) for irrigation at a time

UNITED FAMILY FARMERS

when low grain prices, and large surpluses, are a major economic problem for American agriculture. Only 408 farms would receive irrigation under the Commission plan, yet 60.1% of the total capital costs advocated by the Commission would go to subsidize irrigation. These 408 farms, representing about one percent of the farms in North Dakota, could be purchased outright for perhaps one-tenth of the cost of providing irrigation water to them. A large proportion of these farms were signed up for the PIK program in an effort to alleviate the problem of surpluses. This irrigation will be very destructive, especially to South Dakota, and will be less productive than irrigation further south because of North Dakota's short growing season. Under these circumstances, the Commission's estimated ratio of benefits to remaining costs of only .88 cannot be justified.

Because of the harsh economic realities, the Commission recognized that it may be difficult to persuade farmers in the proposed irrigation districts - particularly the newly-proposed districts - to participate in the Garrison project. Even if enough landowners wish to participate, many of them may be unable to secure the necessary financing.

How did the Commission deal with this reality? Instead of allowing for reduced irrigation acreage if there are not enough takers, an option that seems reasonable to us, the Commission wants Congress to shift unused irrigation acreage to the West Oakes area, just north of the South Dakota state line. This would further aggravate the negative impacts on the farmers in our area. We believe that, if the demand for irrigation does not live up to expectations, the funds saved should either be returned to the federal treasury or invested in additional municipal and industrial water development. The insistence on developing 130,940 irrigated acres, at a cost that can never be recovered, does not seem to have a rational basis.

The promoters of the Commission's Final Report - including the National Audubon Society - have proclaimed that the Lonetree Reservoir has been deleted from the Garrison Project. A careful reading of the Final Report reveals that this is not the case. The Commission recommended that Lonetree be kept as a future reservoir site, and that talks be held with Canada every six months to see if the Canadians are ready to relax their opposition to Lonetree, and to irrigation in the Hudson Bay watershed.

Lonetree has long been a symbol of opposition to Garrison by farmers, environmentalists, and the Canadians. By failing to resolve the question of whether Lonetree should be built, the Commission failed to meet its responsibility to resolve the controversy over Garrison. The debate over Lonetree - and over Garrison itself - is now certain to continue.

Much of our concern with Garrison centers on the negative impacts on the James River Valley. The Commission wants Congress to nearly triple the total irrigated acreage draining into the James River, to 113,360 acres. It is for this reason that the Commission plan is far worse for South Dakota farmers than the original authorized plan. Our productive farmland in the James River Valley would suffer from severe flooding if this plan were allowed to proceed. The Commission calls for channelization of upper portions of the James River, which is certain to increase pressure to channelize lower portions of the river. Water quality would be badly degraded, especially for the first 50 to 70 years after project completion. Even after 70 years, the Commission estimates that we would suffer from a 22 percent increase in salinity in the James River at the state line. A forested prairie river that is greatly valued as riparian wildlife habitat would be stripped of its trees and rendered sterile. The Arrowwood and Sand Lake National Wildlife Refuges would be largely destroyed. For South Dakota, the Commission plan offers no improvements over the authorized plan, and would be worse in many respects.

During the Commission process, landowners in both North Dakota and South Dakota made every attempt to voice their concerns. We were allowed only minimal opportunities to testify. Although the overwhelming majority of farmers who testified were opposed to large-scale irrigation development, the input of farmers was severely limited by the fact that we were not considered a "major participant" in the proceedings. The "major" participants were the state government of North Dakota, the Canadian government, the Audubon Society, and the Indian tribes. We respect the fact that all of these parties had a legitimate interest in the Commission's proceedings. We regret that the landowners who would ultimately experience the greatest positive and negative impacts were not given equal weight.

During the Commission process, it seemed for a time that the Commission would move away from massive irrigation development to municipal and industrial water development, benefitting far more people at far less cost. It seemed likely that Lonetree Reservoir, as a controversial symbol of an outmoded project, would be eliminated as a Garrison project feature. The Garrison Diversion Unit Commission took a giant step backward, toward embracing the flawed concepts of Garrison, between their Preliminary Final Report and their Final Report.

We are left with a situation where nothing has been resolved by the work of the Commission. The Final Report must be opposed in Congress because the damaging features of Garrison have still not been changed. We need your help to get the word out that the Commission's recommendations are unsatisfactory both from an environmental and an economic standpoint. The transition from a destructive and expensive pork-barrel project to a cost-effective domestic water project remains to be made. We do not need an artificial "resolution" to our conflict super-imposed on us by a Secretarial Commission. We do need the help of the Congress to achieve a rational solution to the problems of the Garrison Diversion project. We hope that we can count on your assistance in convincing the Congress of the need for something better than the Commission's Garrison proposal.

We look forward to hearing from you, and to working with you, to resolve the problems in a way that is beneficial to agricultural and environmental interests.

Sincerely,

Harold Seaton

Harold Seaton
President

THE **Missouri Breaks Chapter**
NATIONAL AUDUBON SOCIETY
P.O. Box 82
PIERRE, SOUTH DAKOTA 57501

RESOLUTION

The Missouri Breaks Audubon Society requests the National Audubon Society reevaluate and modify its position on the recommendation of the Garrison Diversion Unit Commission.

The Missouri Breaks Audubon Society has considered the following:

The Garrison Diversion Unit Commission has recommended changes in the Garrison Diversion Unit (GDU) that would triple the irrigated acres in the James River Basin over the authorized projects acres, and

The Commission's recommendations will adversely affect five National Refuges, and

The Commission's Final Report is insufficiently detailed to determine either the impacts of its proposals on the James River in South Dakota or the general environmental impacts of its proposals, and

Upon entering South Dakota, the James River meanders across the almost flat glacial Lake Lakota lakebed and has created a unique area that has been recommended by the South Dakota Department of Game, Fish and Parks for Scenic and Recreational River nomination and has been determined to qualify for that status by the National Park Service, and

Water quality impacts and water quantity impacts that would require dredging or channelization on the James River will impact the most significant wildlife resource in eastern South Dakota, and

The shift in emphasis of the Garrison Diversion Unit may result in impacts equally as serious as those of the authorized project, and

The Missouri Breaks Audubon Society does not take positions on development proposals until environmental impacts are understood.

Be it therefore resolved by the Board of Directors of the Missouri Breaks Audubon Society that the National Audubon Society should withdraw its enthusiastic endorsement of the Garrison Diversion Unit Commission proposal and conditionally endorse the plan assuming the following: .

1) That there be no Negative impacts on South Dakota and specifically that the James River impacts be fully investigated and covered in compliance with the National Environmental Policy Act, and
2) That the impacts on the National Wildlife Refuges, specifically Sand Lake National Wildlife Refuge, be evaluated and documented in compliance with the National Environmental Policy Act.

Amybeth Chappelle
Amybeth Chappelle, President
DATE 1-31-85

Geraldine Stoke
Geraldine Stoke, Recording Secretary
DATE 1/31/85

BEST COPY AVAILABLE

Promotes the Conservation, Development and Wise Utilization of the Fisheries

American Fisheries Society
ORGANIZED 1870 | INCORPORATED 1910
RR 1
Valley City, North Dakota 58072

UPPER MISSOURI CHAPTER
ORGANIZED 1962–1965 | CHARTERED 1966

February 25, 1985

Richard Madson
Garrison Task Force
Box 1591
Jamestown, ND 58401

Dear Rich:

The Upper Missouri River Chapter of the American Fisheries Society has been involved and concerned with the environmental impacts of the Garrison Diversion Project for many years. As a professional organization we feel it important for Congress to be aware of our position as they begin new consideration on a revised Garrison Diversion Project.

We would officially ask you to enter our recent resolution on the Commission's plan into the Congressional hearing record. Thank you.

Sincerely,

Frank K. Pfeifer

Frank K. Pfeifer
President

Promotes the Conservation, Development and Wise Utilization of the Fisheries

American Fisheries Society
ORGANIZED 1870 | INCORPORATED 1910

UPPER MISSOURI CHAPTER
ORGANIZED [illegible] | CHARTERED [illegible]

RESOLUTION ON THE GARRISON DIVERSION UNIT COMMISSION RECOMMENDATIONS

The Upper Missouri River Chapter (UMRC) of the American Fisheries Society has long been interested in the Garrison Diversion Unit because of its adverse impacts on fisheries, wetlands, rivers and streams, water quality and its potential for inter-basin transfer of fish and other aquatic biota. As such we passed a resolution in 1983 urging the Bureau of Reclamation to quantify impacts to the James River prior to any further construction that affects the James River. In 1984, the Garrison Diversion Unit Commission was created to resolve economic, environmental, agricultural and international problems of the Garrison Diversion Unit.

WHEREAS; we applaud the Commission's attempt at trying to find acceptable solutions to Garrison Diversion because that in itself acknowledges problems exist with the authorized plan; and

WHEREAS; we recognize the Commission made good progress in addressing North Dakota's municipal, rural and industrial water needs; and

WHEREAS; the Commission had to complete their plan in an extremely short (four months) time frame, and could not explore all alternatives to lessen environmental impacts; and

WHEREAS; in reality, the Commission's Plan could potentially increase the irrigation acreage because they recommended the addition of 70,480 acres of new irrigation development without recommending deauthorization of the original 250,000 acres; project irrigation acreage could actually increase by 28 percent; and

WHEREAS; the irrigation acreage draining into the James River under the Commission's Plan is increased 3.5 times, from 33,010 acres to 113,360 acres, consequently the Commission's Plan recommends extensive channelization of the James River to accommodate increased flows; this channelization will reduce species diversity and fish habitats while increasing the pollutant load to the river; increased flow related impacts to the James River in North and South Dakota and Arrowwood, Dakota Lake and Sand Lake National Wildlife Refuges are greater than with any earlier project alternative; and

WHEREAS; the Commission recommended an outlet from Devils Lake to the Sheyenne River and funding for a Garrison related inlet to Devils Lake be considered; this could allow for unwanted biota transfer to Canada and also introduce carp into the excellent fishery in Devils Lake; and

WHEREAS; the Commission concluded that water quality would be degraded in the James River and even after equilibrium conditions are reached in 50 to 70 years, without any dilution an increase of 22 percent in salinity would be anticipated at the North and South Dakota border; and

WHEREAS; the Bureau of Reclamation has not yet quantified the impacts expected to the James River with the authorized project;

THEREFORE BE IT RESOLVED that UMRC believes the Commission's Plan fails to adequately address the problem of interbasin biota transfer and compounds the impacts to the James River, and

BE IT FURTHER RESOLVED that while the UMRC recognizes favorable features of the Commission's Plan; such as preservation of Kraft Slough and development of needed municipal, rural and industrial water systems for North Dakota communities, the UMRC cannot endorse the Commission's alternatives to the authorized project until problems of interbasin biota transfer have been eliminated and impacts to the James River reduced, and

BE IT FURTHER RESOLVED the UMRC of the American Fisheries Society offers it's talent and expertise to the State of North Dakota and the Department of the Interior to assist in review, evaluation and resolution of these issues of concern, and

BE IT FURTHER RESOLVED that UMRC will send copies of this resolution to the American Fisheries Society and to all Divisions, Sections, and Chapters of AFS, to national conservation organizations, and to members of the U.S. Senate and House of Representatives who are concerned about the Garrison Diversion Unit.

Passed unanimously at the 1985 annual business meeting of the Upper Missouri River Chapter of American Fisheries Society, assembled in Fargo, ND on February 22, 1985.

North Dakota Chapter

THE WILDLIFE SOCIETY
1305 Business Loop East
Jamestown, North Dakota 58401

February 26, 1985

The Honorable George Miller, Chairman
Water and Power Resources Subcommittee
House Interior and Insular Affairs Committee
1422 Longworth House Office Building
Washington, D. C. 20515

Dear Congressman Miller:

The attached report by the North Dakota Chapter of The Wildlife Society is a review of the Garrison Diversion Unit Commission's Final Report. It is evident from our review that the Commission's recommendations would neither resolve the issues surrounding the Garrison Diversion Unit, nor modify the project in such a manner as to resolve the problems. In fact, implementation of the Commission Plan would actually escalate the adverse impacts of the Garrison Diversion project.

The North Dakota Chapter of The Wildlife Society went on record in 1980 as opposing continued construction of the Garrison Diversion Unit because of its serious environmental impacts. After participating in the Commission process and after a thorough review of the Commission's Final Report, the North Dakota Chapter of The Wildlife Society remains opposed to further construction of the Garrison Diversion Unit.

In establishing the Commission, the Congress specified that it was to propose development alternatives which would lead to the early resolution of the significant economic, environmental, and international issues of the Garrison Diversion Unit "as presently authorized." However, the Commission has not recommended that any part of the Garrison Diversion Unit be deauthorized, and the only alternatives recommended are those which would add to the authorized project's irrigation and municipal water developments. Without recommending that the features of the Garrison Diversion Unit which are responsible for its significant economic, environmental, and international problems be modified, the Commission has failed to resolve those problems.

Because the Commission has not recommended modifications or alternatives which would resolve the problems of the authorized project, we ask you and your Subcommittee to do what the Commission failed to do, and to modify the Garrison Diversion Unit authorization to resolve the significant economic, environmental, and international issues associated with the project.

Sincerely,

Gary L. Pearson

Gary L. Pearson
Chairman, Water Projects Committee

Dedicated to the wise use of all natural resources

North Dakota Chapter

THE WILDLIFE SOCIETY

A REVIEW OF THE GARRISON DIVERSION UNIT COMMISSION DECEMBER 20, 1984, FINAL REPORT

Prepared by the
Water Projects Committee
North Dakota Chapter of The Wildlife Society

February, 1985

Dedicated to the wise use of all natural resources

EXECUTIVE SUMMARY

The Garrison Diversion Unit Commission Plan would increase the number of municipal and rural water recipients, replace Habitat Evaluation Procedures with acre-for-acre mitigation of wildlife habitat losses, and preserve Kraft Slough.

The Plan would not deauthorize any of the irrigation areas or features of the original 250,000 acre Garrison Diversion Unit, and it would add 70,480 acres of new irrigation development. It would increase the size of the initial project, pending resolution of Canadian objections, by more than 50 percent, and the size of the final project by 28 percent. Lonetree Reservoir would be retained as an authorized feature of the project, with construction deferred until it is needed. Negotiations with Canada would be continued until Missouri River water could be delivered into the Hudson Bay Basin for irrigation development in the Souris and Red River drainages. The principal barriers to the interbasin transfer of Missouri River biota into the Hudson Bay Basin would be eliminated under the 130,940 acre initial project proposed by the Commission.

Compared to the 250,000 acre authorized project, impacts to wetlands would be reduced under the initial 130,940 acre project, but they would be increased with full development of the 320,480 acres of irrigation contemplated under the Commission Plan. Impacts to the James River and to the Arrowwood, Dakota Lake and Sand Lake National Wildlife Refuges would be significantly increased under the Commission's initial 130,940 acre plan, and, with full irrigation development, impacts to other rivers and National Wildlife Refuges would be the same as with the authorized project.

The Commission's initial 130,480 acre project would cost $221 million less than the authorized 250,000 acre project, but federal irrigation costs per farm would be increased from $1.2 million to $1.65 million while the number of farms irrigated would be reduced from 868 to 408. No estimate is provided of the total costs of the 320,480 acre project which would be authorized under the Commission Plan.

PREFACE

The North Dakota Chapter of The Wildlife Society is a state-wide organization of professionals in the wildlife and natural resource field chartered in 1964, the year before the Garrison Diversion Unit was authorized. Members of the Chapter have been actively involved with the Garrison Diversion Unit and the evaluation of its impacts on fish and wildlife resources for more than two decades, and for twelve years the Chapter has had a special committee to deal specifically with the project. Members of the Chapter have reviewed every environmental impact statement released for the Garrison Diversion Unit, as well as virtually all other available documents relating to the project. Consequently, the North Dakota Chapter of The Wildlife Society has perhaps had longer and closer involvement with the Garrison Diversion Unit issue than any other conservation organization in the nation.

Because of the Garrison Diversion Unit's severe impacts to prairie wetlands, native prairie grasslands, rivers and streams, unique wildlife habitats, National Wildlife Refuges, and Canadian fisheries, the North Dakota Chapter of The Wildlife Society passed a resolution in 1980 opposing all further construction on the project. That resolution stands as the Chapter's position.

When the Department of the Interior and the State of North Dakota replaced acre-for-acre mitigation of the project's impacts on wildlife habitat with a mitigation plan based upon untested "Habitat Evaluation Procedures," the Chapter went on record in 1983 opposing the new mitigation plan.

In June, 1984, representatives of the National Audubon Society, without consulting or advising other conservation organizations, farm groups, or local Audubon chapters or members involved in the Garrison Diversion issue, made an agreement with North Dakota's two senators which provided for the appropriation of $53.6 million for Garrison in Fiscal Year 1985, and the establishment of a commission to review the project and make recommendations for resolving its international, economic and environmental problems.

The North Dakota Chapter of The Wildlife Society participated actively in the commission process by reviewing commission documents, attending technical workshops held by the commission staff, and submitting information and comments at all three public hearings held by the commission. The following report by the Water Projects Committee of the North Dakota Chapter of The Wildlife Society represents a review, prepared independently of agency perspective or political influence, of the Final Report of the Garrison Diversion Unit Commission.

THE CONTROVERSY

The U. S. Bureau of Reclamation's Garrison Diversion Unit in North Dakota has become the focus of a mounting national and international controversy. The authorized 250,000 acre irrigation project designed to divert water from the Missouri River to lands in eastern North Dakota would destroy or adversely impact 73,000 acres of prairie wetlands, 2,000 acres of riverine wetlands, a dozen National Wildlife Refuges, and 43,000 acres of native prairie grasslands, as well as eight unique natural areas, including Kraft Slough and the Lonetree Valley. The project would require channelization of over 142 miles of streams, increase pollutant loads in five rivers, and create routes for the transfer of undesirable Missouri River fish species, diseases and parasites into the Hudson Bay Drainage Basin with potentially devastating impacts on the commercial and sport fisheries of Lake Winnipeg and Lake Manitoba. Project costs have escalated from an estimated $212 million when the project was authorized in 1965, to an estimated $1.34 billion in 1985.

In response to recommendations of the U. S./Canadian International Joint Commission and formal objections of the Government of Canada, the Bureau of Reclamation implemented a plan in 1983 which called for construction of an 85,000 acre "Phase I" of the Garrison Diversion Unit and delay of the remaining portions of the project until Canadian concerns could be resolved.

As a result of the mounting environmental, economic and international problems, the U. S. House of Representatives did not appropriate funds for the Garrison Diversion Unit in 1981, 1982 or 1983, and the project was kept alive only through political maneuvering by North Dakota's two senators on the Senate Appropriations Committee.

THE COMMISSION

With opposition to the project strong in the House of Representatives and growing in the Senate, North Dakota's congressional delegation was faced with the prospect of losing all funding for the Garrison Diversion Unit. Consequently, in June, 1984, the State's two senators made an agreement with representatives of the National Audubon Society which provided for a Fiscal Year 1985 appropriation of $53.6 million for the Garrison Diversion Unit, and the establishment of a commission to review the project and make recommendations for modifications. The $53.6 million would be the largest appropriation in the project's history, and it would be equivalent to a fourth of the total funds which had been appropriated for Garrison since it was authorized 20 years earlier.

In establishing the commission, the Congress recognized that, "the Garrison Diversion Unit, as presently authorized, raises significant issues of economic, environmental, and international concern," and it directed the Secretary of the Interior to appoint a commission to, "propose development alternatives which will lead to the early resolution of the problems identified."

THE COMMISSION PLAN

On December 20, 1984, the Garrison Diversion Unit Commission released its Final Report containing its recommendations for dealing with the problems of the Garrison Diversion Unit. In order to evaluate the effectiveness of the Commission Plan in resolving the issues of the Garrison Diversion Unit, it is necessary to consider what modifications the Commission did, and did not, recommend, and how implementation of the Commission's recommendations would alter the environmental, economic, and international impacts of the project.

Environmental Issues

Irrigation

The most serious environmental, economic and international problems of the Garrison Diversion Unit are the result of the project's irrigation development. The Commission Plan would increase initial irrigation development, pending resolution of Canadian objections to the transfer of Missouri River water into the Hudson Bay Basin, from the 85,000 acre Phase I development to 130,940 acres, an increase of more than 50 percent.

The Commission recommended the addition of 70,480 acres of new irrigation development not included in the authorized project, and because it did not recommend deauthorization of any of the irrigation acreage contained in the original 250,000 acre project, these additions, if authorized, would expand the project's irrigation acreage by 28 percent, to a total of 320,480 (250,000 + 70,480) acres.

Thus, rather than reducing the size of the Garrison Diversion Unit, the Commission Plan would expand both the initial and final project, with corresponding increases in its adverse environmental impacts.

Lonetree Reservoir

Project proponents and opponents alike recognize that the 30,000 acre Lonetree Reservoir is the key to future expansion of the Garrison Diversion Unit irrigation development. Located in the Lonetree Valley at the headwaters of the Sheyenne River, the reservoir would inundate unique wildlife habitat, including 5,519 acres of wetlands, 4,795 acres of native grasslands and 420 acres of woodlands, and it would destroy the Sheyenne Lake National Wildlife Refuge.

The Commission recommended that the Lonetree Reservoir not be eliminated, but that it be retained as "an authorized feature of the Commission Plan," and that land acquisition for the reservoir be completed. Ownership would be retained by the Federal Government and the area would be managed in the interim for wildlife by the State of North Dakota, "provided such use will not prohibit its future use as a reservoir site." Construction of the reservoir would "be deferred pending a determination by the Secretary of the Interior consisting of a demonstration of need and satisfactory conclusion of consultations with Canada."

By increasing the acreage of the initial irrigation development, adding new irrigation areas not included in the authorized project, and retaining the 250,000 acres of irrigation in the authorized project, the Commission Plan would increase, rather than diminish, the need for the Lonetree Reservoir in both the initial and final projects. Consequently, the Commission Plan specifically provides the mechanism for the eventual construction of the Lonetree Reservoir.

Rivers

The Commission Plan would increase the irrigation acreage draining to the James River 3.5 times, from 33,010 acres in the original authorized project, to 113,360 acres. As a result of this irrigation development, after leaching of the soils reaches equilibrium conditions in 50 to 70 years, salinity levels in the James River at the South Dakota border would be expected to increase by 22 percent from current levels, from 555 parts per million to 680 parts per million. The Final Report contains no information on water quality in the James River during the initial leaching period when the impacts would be the most severe. In order to dilute the pollutants contained in the irrigation return flows, the Commission recommended that additional releases of water be made into the James River. The Commission also recommended that the James River be channelized in order to accommodate the increased flows resulting from the project. Over 135 miles of the James River in North Dakota alone would be impacted by these increased flows and pollutant loads.

Because the Commission Plan anticipates and provides for the future development of irrigation in the Hudson Bay Drainage Basin under the 250,000 acre authorized Garrison Diversion Unit, the impacts to the Souris, Sheyenne, Wild Rice and Red rivers would remain essentially the same as with the original project. Thus, the Commission Plan would substantially increase the adverse impacts to the James River (although the Report does not address the specific impacts to the James River in South Dakota), and it would not reduce the impacts to other rivers.

Wetlands

The Commission's Final Report estimates that its recommended 130,940 acre initial project would result in the loss of 14,212 acres of wetlands, but U. S. Fish and Wildlife Service data indicate that 15,585 acres of wetlands would be destroyed and 5,159 acres would be adversely affected. When the 70,480 acres of new irrigation proposed in the Commission Plan are added to the 250,000 acre authorized project, wetland losses with full development of the Garrison Diversion Unit would be increased to approximately 83,000 acres.

National Wildlife Refuges

Under the Commission Plan, six National Wildlife Refuges, seven Federal Waterfowl Production Areas and 3,981 acres of Federal easement wetlands would be adversely affected by the initial 130,940 acre irrigation development. In addition, two State Wildlife Management Areas totaling 11,883 acres would be impacted. With full development of the Garrison Diversion Unit, another six National Wildlife Refuges would be adversely impacted.

Audubon National Wildlife Refuge has been adversely affected by the elevation of Lake Audubon to supply water to the McClusky Canal, and the Turtle Lake Irrigation Area recommended by the Commission could be expected to cause adverse impacts to the Lake Nettie National Wildlife Refuge. The Sheyenne Lake National Wildlife Refuge in the Lonetree Valley would be removed from the National Wildlife Refuge System in anticipation of inundation of the area by the Lonetree Reservoir.

The 1979 Final Comprehensive Supplementary Environmental Statement for the authorized Garrison Diversion project indicates that project flows in the James River would restrict management of the 5,379 acres of pools at the Arrowwood National Wildlife Refuge for waterfowl production and rough fish control, and would complicate management of the 11,450 acres of pools at the Sand Lake National Wildlife Refuge on the James River in South Dakota. Because the Commission Plan would increase the irrigation acreage discharging return flows to the James River 3.5 times, the impacts to the Arrowwood, Dakota Lake and Sand Lake National Wildlife Refuges located on the river would be increased significantly from those described for the original authorized project.

Kraft Slough

The Commission Plan recognizes the unique wildlife values of Kraft Slough and recommends acquisition of a 2,680 acre area at this site to be managed in perpetuity for wildlife.

Development of the authorized 250,000 acre Garrison Diversion project would result in the destruction of an 8,800 acre wetland complex adjacent to Kraft Slough, thereby reducing the wildlife values of this unique area.

Wildlife Mitigation

The Commission rejected the "Habitat Evaluation Procedures" developed in 1982 by the Department of the Interior and the State of North Dakota for mitigation of the Garrison Diversion project's impacts to wildlife habitat, and recommended instead mitigation of wildlife habitat losses on the basis of acre-for-acre replacement, "with their ecological equivalent as determined by (1) type of wildlife use (for wetland and contiguous uplands), and (2) equivalent vegetative cover (for woodlands and other uplands)." However, because the Commission Plan underestimates the wetland impacts of the 130,940 acre initial project by more than 6,500 acres, and although it would acquire over 5,000 acres of existing wetlands against the mitigation requirement, it would permit impacts to more than 9,000 acres of wetlands with no replacement. Thus, although the Commission Plan recommends acre-for-acre replacement of wildlife habitat losses, approximately half of the wetland impacts of the initial project would actually be replaced.

The 82,699 acre mitigation and enhancement plan described by the Commission would include 37,773 acres of uplands in the Lonetree Reservoir site and on canal rights-of-way and excess project lands which would be credited as wildlife enhancement lands.

Mitigation for impacts to National Wildlife Refuge lands and North Dakota Game and Fish Department lands acquired in part with Federal monies would be implemented in accordance with the National Wildlife Refuge System Administration Act and Federal Aid to Wildlife Act, their respective regulations and other appropriate legislative mandates. However, the Commission did not provide specific funding recommendations to evaluate and mitigate these refuge losses.

Under the Commission Plan, "Mitigation measures will be implemented prior to loss of the resource and unfulfilled mitigation from past project losses need to be completed."

Devils Lake

Restoration of the Devils Lake Chain in northcentral North Dakota was a major feature of the Garrison Diversion Unit when it was authorized in 1965. However, recent rises in the level of the lakes, partially the result of wetland drainage within the watershed, have created serious flooding problems and have stimulated a search for an outlet. Construction of such an outlet would alleviate the flooding problem, but would release the saline and nutrient-rich water into the Sheyenne River, creating downstream water quality problems. In addition, such an outlet would provide a direct route for transfer of undesirable fish species, diseases and parasites to the Red River of the North and to Manitoba streams and lakes if Missouri River water were to be delivered to Devils Lake.

Nevertheless, the Commission recommended consideration of construction of an inlet to Devils Lake, as well as an outlet, both features of the project authorized in 1965 but the subject of international concern. Because the only feasible source of supply would be the Missouri River and the only feasible outlet would be the Sheyenne River draining to the Red River and Canada, the Commission Plan would increase the international problem, and it would carry the potential for introducing rough fish into the Devils Lake system with resulting deterioriation of the current outstanding sport fishery and adverse impacts to waterfowl habitat in the basin.

Economic Issues

As authorized in 1965, the Garrison Diversion Unit would irrigate 250,000 acres and deliver municipal water to 53,000 people in 14 communities at a total project cost currently estimated at $1.34 billion and a direct benefit/cost ratio of 0.64. Federal irrigation development costs would average $1.2 million for each of 868 farms, or $5,170 per acre irrigated. As a result of this irrigation development, each farm would realize average annual benefits of $21,552 in increased agricultural production, or a return to irrigators of 1.7 percent on the federal irrigation investment. The municipal water system would cost $62 million, or an average of $170.39 per household per year, and would be repaid by the municipal water users.

The Commission Plan initially would irrigate 130,940 acres and deliver municipal water to "up to 376,000 people in 130 towns and rural areas," at a total cost estimated at $1.119 billion and a direct benefit/cost ratio of 0.76. Federal irrigation development costs would average $1.65 million for each of 408 farms, or $5,414 per acre irrigated. Increased agricultural productivity from this irrigation would provide average annual benefits of $23,597 per farm, or a return to irrigators of 1.5 percent on the federal irrigation investment. The municipal water system would cost $401 million, or an average of $186.44 per household per year, and, "The configuration of the system shall be based on the ability and willingness of water users to assume financial responsibility." The Commission recommended that public subsidies be incorporated to assure that the cost of the system would be feasible for the municipal and rural water users.

Compared to the 250,000 acre authorized Garrison Diversion Unit, the Commission's 130,940 acre initial project would reduce total costs by $221 million, from $1.34 billion to $1.119 billion (16.5 percent), reduce the federal irrigation costs from $1.042 billion to $673 million (35 percent), increase the irrigation subsidy by $449,736 (37.4 percent) per farm, and increase municipal water system costs by $339 million (547 percent). As a result of the expanded municipal and rural water supplies recommended by the Commission, more residents of North Dakota would receive direct benefits from the Commission Plan than from the original authorized project.

The Commission's Final Report provides no estimate of the costs for the full 320,480 acre irrigation development which would be authorized under its Plan.

International Issues

Despite a decade of repeated, formal objections by the Governments of Canada and Manitoba to the use of Missouri River water for irrigation in the Hudson Bay Basin, the Commission Plan calls only for "deferral of irrigation in the Hudson Bay drainage," and recommends continued negotiations with Canada every six months, "until a mutually satisfactory means is found to accommodate irrigation deliveries of Missouri River water" "to Hudson Bay drainage areas in North Dakota." Thus, rather than providing for the early resolution of the international controversy associated with the Garrison Diversion Unit, the Commission Plan would perpetuate it. Even if a mutually satisfactory means could be found to deliver Missouri River water to the Hudson Bay Basin of North Dakota for irrigation, this would not, of course, resolve the serious environmental and economic problems associated with the authorized Garrison Diversion Unit.

Prior to establishment of the Commission, barriers to the transfer of Missouri River fish species into the Hudson Bay Basin under the 85,000 acre Phase I development were to have included a $40 million fish screen in the McClusky Canal, a prohibition against fishing in the Lonetree Reservoir, and the 90-foot high Lonetree Dam with no discharges to the Sheyenne River. Although the Government of Canada has consented to the construction of Lonetree Dam with these barriers in place, the Government of Manitoba expressed its concern to the Commission that these safeguards were inadequate to prevent the transfer of undesirable fish species, diseases and parasties into the Hudson Bay Drainage Basin.

The Commission Plan, however, would eliminate the fish screen in the McClusky Canal, defer completion of the Lonetree Dam and Reservoir, and deliver Missouri River water via the Sykeston Canal directly to the 20,935 acre New Rockford Irrigation Area in the Hudson Bay Basin, where the only barrier to transfer would be the 30-foot Robinson Coulee Diversion Dike. Under the 85,000 acre Phase I development, it was estimated that water levels behind the Robinson Coulee Diversion Dike could rise to within seven feet of the crest of the dike.

The Commission Plan, therefore, eliminates the principal barriers to interbasin transfer of Missouri River fish species, diseases and parasites into the Hudson Bay Basin which were contained in the previous project plan.

CONCLUSIONS

The Garrison Diversion Unit Commission's Plan would not resolve the economic, environmental or international issues identified with the Garrison Diversion Unit as authorized. Rather, the Commission Plan would have greater potential environmental impacts and significantly higher potential costs, and it would remove the principal safeguards against transfer of Missouri River biota into the Hudson Bay Basin.

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For Additional Information Contact

Water Projects Committee
North Dakota Chapter of The Wildlife Society
1305 Business Loop East
Jamestown, North Dakota 58401
701/252-6036

COMPARISON OF PLANS FOR THE GARRISON DIVERSION UNIT

Drainage Basins and Irrigation Areas	1965 Authorized Project	1983 Phase Development Phase I	1983 Phase Development Phase I & II	1985 Garrison Diversion Unit Commission Plan Initial project	1985 Garrison Diversion Unit Commission Plan Ultimate Project
Hudson Bay Basin					
Lonetree Reservoir	(Yes)	(Yes)	(Yes)	(To be determined)	(Yes)
Lincoln Valley Area	6,515 A.	6,515 A.	6,515 A.	-	-
Souris River					
Middle Souris Area	103,800 A.	-	103,800 A.	-	103,800 A.
Karlsruhe Area	12,200 A.	-	12,200 A.	-	12,200 A.
(Total)	(116,000 A.)		(116,000 A.)		(116,000 A.)
Sheyenne River					
Warwick-McVille Area	34,120 A.	-	22,220 A.	-	34,120 A.
New Rockford Area	20,935 A.	-	-	-	-
(Total)	(55,055 A.)				
Devils Lake					
Warwick-McVille	13,100 A.	35,000 A.	25,000 A.	-	13,100 A.
Wild Rice River					
East Oakes Area	26,320 A.	-	26,320 A.	-	26,320 A.
Total	216,970 A.	31,515 A.	196,055 A.	0	189,520 A.
Missouri River Basin					
James River					
LaMoure Area	13,350 A.	13,350 A.	13,350 A.	13,350 A.	13,350 A.
West Oakes Area	19,660 A.	19,660 A.	19,660 A.	19,660 A.	19,660 A.
New Rockford Area	-	20,935 A.	20,935 A.	20,935 A.	20,935 A.
Lincoln Valley Area	-	-	-	6,515 A.	6,515 A.
Turtle Lake Area	-	-	-	13,700 A.	13,700 A.
McClusky Canal Area	-	-	-	4,000 A.	4,000 A.
Harvey Pumping Area	-	-	-	2,000 A.	2,000 A.
New Rockford Canal Area	-	-	-	1,200 A.	1,200 A.
New Rockford Extension Area	-	-	-	32,000 A.	32,000 A.
(Total)	(33,010 A.)	(53,945 A.)	(53,945 A.)	(113,360 A.)	(113,360 A.)
Missouri River					
Lucky Mound Area	-	-	-	7,700 A.	7,700 A.
Upper Six-Mile Creek Area	-	-	-	7,500 A.	7,500 A.
Fort Yates Area	-	-	-	2,380 A.	2,380 A.
(Total)	(0)	(0)	(0)	(17,580 A.)	(17,580 A.)
Total	33,010 A.	53,945 A.	53,945 A.	130,940 A.	130,940 A.
TOTAL	250,000 A.	85,460 A.	250,000 A.	130,940 A.	320,480 A.

TESTIMONY OF THE SIERRA CLUB
before the Water and Power Resources Subcommitte
of the House Interior and Insular Affairs Committee
on the Garrison Diversion Unit

by Stephen Hiniker
Appalachian Representative of the Sierra Club

February 28, 1985

Mr. Chairman, members of the Subcommittee, my name is Stephen Hiniker and I am speaking for the Sierra Club, a nationally based conservation organization with more than 350,000 members across the U.S. I want to thank you for the opportunity to present the views of the Sierra Club before you today.

The Sierra Club commends the hard work and the good recommendations of the Garrison Commission. However, the Sierra Club remains opposed to the final product of the Commission and urges that the Congress reject the plan until major modifications are made to the plan.

We are pleased that the Commission recommends acre for acre replacement in computing wetlands mitigation for the project. We also support the Commission's recommendation that waters from the project be used to supply towns and cities with needed municipal and industrial water. Additionally, the Garrison Commission is to be commended for its plans to shelve the environmentally damaging Taayer Reservoir.

However, the Commission plan does not resolve many of the major environmental and economic problems of the project. Our objections can best be placed into the following four categories:

1) Lonetree Reservoir. The Lonetree reservoir would be located near the continental divide between the Hudson Bay Watershed and the Missouri River Basin. Because of the potential for the transfer of rough fish and foreign biota into the Hudson watershed from the Missouri Basin, Canada has strongly and correctly objected to the construction of this feature. Lonetree is the key to development of the originally authorized project and it has been defered by the Commission Plan but not deleted. Let me repeat - Lonetree Reservoir has been defered and not deleted as a project

feature. Senator Mark Andrews has correctly noted that Lonetree Reservoir could be completed without any further authorization by Congress. Senator Andrews said on December 15, 1984 that he would offer an amendment to get funding for the construction of Lonetree "this year, next year or two years down the pike". He added that it was only a "tactical decision" as to when the amendment would be offered.

Until Lonetree is actually deauthorized, the most controversial aspect of this entire project remains as a distinct possibility. This is totally unacceptable. Lonetree must be deauthorized.

2) Economics. The Sierra Club has historically and consistently objected to the high irrigation subsidies linked to the Garrison Diversion Unit. We were very concerned when the per farm subsidy began nearing the half million mark years ago. We are stunned to note that the subsidy under the Commission plan would involve an incredible $1.6 million per farm. We opposed subsidies of $500,000 per farm. We oppose subsidies of $1.6 million per farm.

The plight of the American farmer has been brought home to Congress and the American people in the last several weeks. The worst thing that Congress can do to the American farmer is to encourage surplus crop production that will depress farm prices even further. Garrison irrigation development is akin to extinguishing the fires of agricultural controversies by dousing them with gasoline.

3) Impacts on National Wildlife Refuges. The original project would have impacted 12 National Wildlife Refuges. Unless major features of the original project are deauthorized, the Commission Plan will leave open the possibility of impacts to these same 12 Refuges. In order to actually protect these refuges the Lonetree Reservoir, the Velva Canal and the Souris Loop irrigation districts must be deauthorized. Congress should not expect the national environmental community to be pleased with a proposal that will adversely impact wildlife refuge resources, when the potential impact remains the same.

4) Irrigation on the James River. The original project would have allotted irrigation waters for 33,000 acres of farmland in the James River Basin. Under the Commission plan, the James River irrigation is upped 3.5 times to a staggering 113,360 acres. This vastly increased development would mandate significant channelization on the James River. The channelization of the James that would result from this increase of flows would be devastating to the natural values along this prairie river, and to property owners along hundreds of miles of the river. Under the

originally authorized project the James River and two additional Wildlife Refuges that are located on the river, Arrow Wood in North Dakota and Sand Lake in South Dakota would have been severely damaged. Under the Commission plan, the river and these refuges will be devastated. The Sierra Club stands firm in speaking for the protection of the tremendous river ecosystem.

In summary, the compromise that was struck by the Garrison Commission has some aspects which are definite improvements over the original plan. However, the ommissions by the Commission, particularly the retention of the Lonetree Reservoir and the move to increase irrigation within the James River basin makes this compromise one that must be greatly modified before we can endorse its conclusions. In fact, the project is now in many ways worse than the original unit. The bottom line is that until major features of the authorized project are deauthorized, the Commission has not resolved what has been the most controversial water project in American history. It has actually made portions of the project larger and increased many of the adverse environmental impacts. The Commission plan provides a very important framework for meeting legitimate North Dakota municipal water needs. If you retain that framework, delete project irrigation along the James River and deauthorize features no longer be needed to supply irrigation water needs, then and only then will this controversy be laid to rest. Until these actions are taken, the Sierra Club will actively oppose the Garrison Diversion project.

Thank you.

TESTIMONY OF NORTH DAKOTA WATER USERS ASSOCIATION TO SUBCOMMITTEE ON WATER AND POWER RESOURCES OF THE HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS ON THE GARRISON DIVERSION UNIT COMMISSION FINAL REPORT AND HR1116

Thursday, February 28, 1985

I. INTRODUCTION

Mr. Chairman and members of the Subcommittee, my name is Michael Dwyer. I am the Executive Vice President of the North Dakota Water Users Association, which is comprised of over 1000 farmers, ranchers, irrigators, cities, water districts, businesses, rural electric cooperatives, utilities, energy companies, and other members throughout North Dakota. In addition to representing the North Dakota Water Users Association, I am speaking to you today on behalf of the following organizations:

North Dakota Farm Bureau
North Dakota Ag Coalition
North Dakota AFL-CIO
North Dakota Building & Construction Trades Council
North Dakota Bankers Association
Greater North Dakota Association
North Dakota Association of Counties
North Dakota League of Cities
North Dakota Retail Association
North Dakota Association of Soil Conservation Districts
North Dakota Stockmen's Association
North Dakota Water Resource Districts Association
North Dakota Rural Electric Cooperative Association
Anamoose Chapter of the North Dakota Wildlife Federation

Attached to my testimony is a letter from each of these organizations supporting diversion of Missouri River water in North Dakota via the Garrison Diversion project for multiple uses, and joining in the testimony I am presenting to you today. As you can see, Garrison Diversion has overwhelming support from every corner of North Dakota, from every level of government, from virtually every interest in North Dakota, private or public, and certainly from the grassroots of North Dakota.

II. WHY IS GARRISON DIVERSION SO IMPORTANT TO NORTH DAKOTA?

North Dakota's founding fathers did not have to fly over North Dakota to see that the Missouri River offered the only hope for meaningful water development in our state. They walked across the beds of the state's other rivers (Red, Sheyenne, James, Souris, and rivers in southwestern North Dakota) enough times without getting wet to know that, while nature may provide water in one season, it may not the next. Thus, John Wesley Powell told the 1889 Constitutional Convention that development of North Dakota's water resources was the most important issue they would discuss.

That statement is just as true today as it was in 1889. The Red River, North Dakota's major river in eastern North Dakota, experienced no-flow conditions as recently as 1977, reminding us that nature does not always give us water when we want or need it. The total combined flow of rivers east of the Missouri River (Red, James, Sheyenne, and Souris Rivers) is only four percent of the flow of the Missouri River. Distribution of Missouri River water is an absolute necessity if the rest of North Dakota is to have an assured water supply, and the economic development that occurs as a result.

What does Pick-Sloan and Garrison mean to North Dakota? First, it represents our entitlement to meaningful water development for our state. Downstream states wanted to control their floods. They also wanted navigation. In order to receive those benefits, North Dakota, South Dakota, and Montana agreed to allow a permanent flood for the necessary dams and reservoirs. Not only did North Dakota give up 550,000 acres of land for the Garrison and Oahe Reservoirs, it also sacrifices $131 million annually in lost revenue, taxes, and business volume. North Dakota, however, also had something to gain--the opportunity to distribute Missouri River water to central and eastern North Dakota via the Garrison Diversion Unit. So the great compromise was crafted. North Dakota was required to make a huge sacrifice, but in return the state was assured a supply of water for all of eastern and central North Dakota.

The Pick-Sloan Plan not only means a long-term sacrifice to help our downstream neighbors, or the potential to distribute Missouri River water for irrigation, industrial, municipal, rural, wildlife, recreation, and all other uses of water in North Dakota. It also means the potential for North Dakota to have an economic base equal to other states. It means the potential to keep our young people in North Dakota with opportunities for jobs and a future. It means the potential to process some of our own agricultural products, and receive the many resulting benefits. It means opportunities for additional industrial development, like the lignite and energy industry in western North Dakota. It means water-based recreational opportunities. It means habitat for wildlife and waterfowl. It means good, clear water for our towns and cities. It means domestic and livestock water for our farmers. It means water for irrigation, to diversify our agricultural crops and stabilize our livestock feed base and our farm economy. It means a quality of life.

Why does North Dakota so strongly support Garrison Diversion? It is not just that we are entitled to a project to distribute Missouri River water to central and eastern North Dakota because of our sacrifices for downstream benefits, nor is it because of the federal commitment to North Dakota, nor is it because almost all costs of the project will be repaid by water and power revenues. It is because the Missouri River is North Dakota's future. Our economic, business, social, and all other aspects of our lives depend on a distribution system in North Dakota to utilize the Missouri River.

Today, as we approach North Dakota's 100th Anniversary, we are only receiving about one percent of the benefits and promises of the Pick-Sloan Plan. And we continue to make an annual sacrifice to help our downstream neighbors. Pick-Sloan means as much to North Dakota now as it did in 1944, and as much as it did in 1889 when North Dakota's founding fathers first dreamt of water development for the state. North Dakota cannot rest until our future is secured through a distribution system to utilize our Missouri River water.

III. GARRISON DIVERSION UNIT COMMISSION

The Garrison Diversion Unit Commission was appointed by the Secretary of the Interior on August 11, 1984, to review the controversy surrounding the authorized Garrison Diversion Unit, evaluate the contemporary water needs of the State of North Dakota, and attempt to reach a consensus that would satisfy the major proponents and opponents in the Garrison issue.

Because of the huge sacrifices North Dakota has made for the Pick-Sloan plan, so that downstream states could receive navigation, flood control, riverside industrial development, and hydropower benefits (benefits worth billions of dollars already accrued), the Commission recognized and agreed that North Dakota deserves a federally funded water project.

The Garrison Diversion Unit Commission adopted three additional principles to guide its decisions:

1. To not foreclose future opportunities of the State of North Dakota to pursue irrigation and other development in the Hudson Bay drainage area and elsewhere in the State.

2. To meet the needs of the greatest number of people at an acceptable cost (or as stated in P.L. 98-360, to meet the water needs of North Dakota).

3. To minimize environmental impacts.

An equitable compromise consists of two opposing sides making a mutual sacrifice towards an acceptable plan.

THE BASIC OBJECTIVE OF NORTH DAKOTA IS TO DIVERT MISSOURI RIVER WATER EASTWARD TO PROVIDE A LONG TERM WATER SUPPLY FOR FUTURE GENERATIONS FOR MULTIPLE PURPOSES, INCLUDING IRRIGATION, MUNICIPAL, INDUSTRIAL, RECREATION, AND WILDLIFE. MORE SPECIFICALLY, IT IS NORTH DAKOTA'S OBJECTIVE TO PUT WATER INTO THE SHEYENNE, RED, AND SOURIS RIVERS AND DEVILS LAKE FOR MULTIPLE USES.

The basic objective of Audubon and other opponents is to protect the environment, primarily wildlife and waterfowl habitat. The basic objective of Canada and Manitoba is to protect its water quality and fishing industry.

An equitable compromise must preserve the basic objectives of all sides.

I would like to briefly address three areas of the Garrison Diversion Unit Commission Final Report.

A. WHOSE OBJECTIVES DOES THE COMMISSION PLAN SATISFY?

First, it was clear during the Commission's proceedings and its final recommendations that the primary objectives of the National Audubon Society were satisfied. Why?

Audubon wanted 100,000 acres of irrigation, and the Commission recommended 113,000 acres, plus 17,000 acres on North Dakota's Indian Reservations. Audubon wanted no Taayer Reservoir to preserve Kraft Slough, and Kraft Slough was preserved. Audubon wanted heavy emphasis on municipal water, and the Commission recommended that, even over North Dakota's objections. Audubon wanted acre for acre replacement for lost wetlands, and they got that. Audubon wanted no Lonetree, which was the central issue of the Commission's deliberations, and we have no Lonetree.

However, the Commission Plan does not satisfy North Dakota's objectives. Under the Commission Plan, North Dakota makes the following sacrifices:

1. From the original promise of one million acres of irrigation, North Dakota would presently receive only 113,000 acres.
2. Taayer Reservoir would not be built to preserve Kraft Slough.

3. North Dakota's basic objective is to put water into the Souris, Sheyenne, Red, and James Rivers, and the Devils lake Basin, for multiple uses. Lonetree Reservoir is necessary to meet this objective. However, Lonetree will not be constructed.

4. Benefits from Garrison to South Dakota would be foreclosed.

It is not surprising that Audubon has endorsed the Commission Final Report.

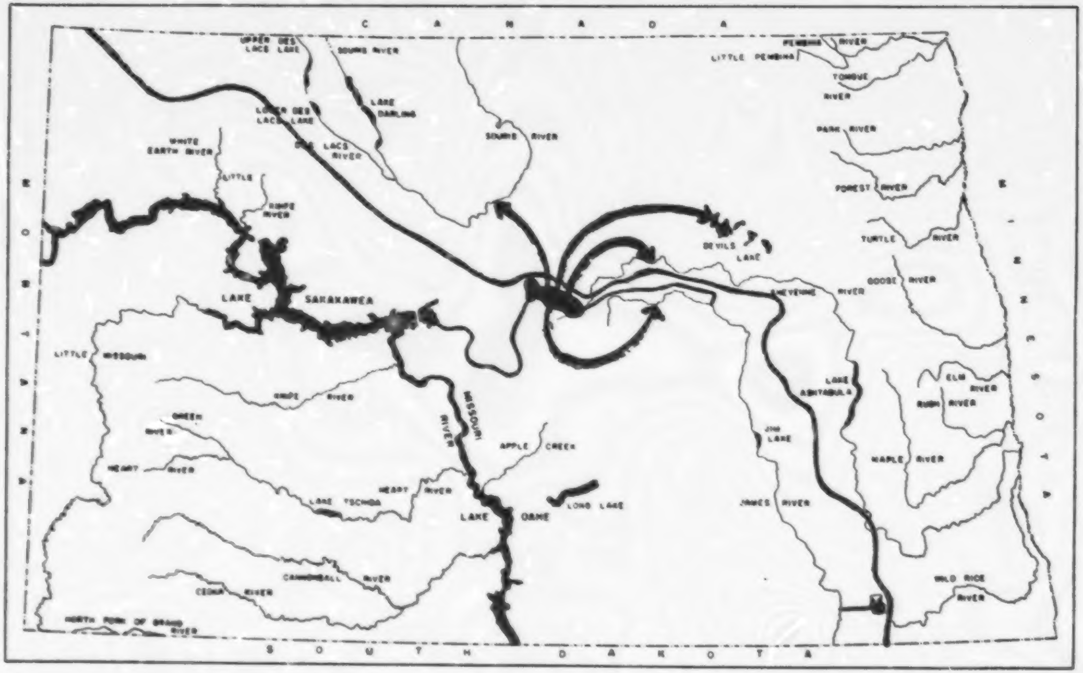
B. LONETREE RESERVOIR

The second area of the Commission Final Report that I'd like to address is Lonetree Reservoir.

Why is the Lonetree Reservoir such an important part of the Garrison Diversion Unit? Lonetree is simply the "heart" of the project.

The concept of the Garrison Diversion Unit is to deliver water from Lake Sakakawea into Lake Audubon via the Snake Creek Pumping Plant, and then by gravity flow into the Lonetree Reservoir via the McClusky Canal. The Lonetree Reservoir would serve as a holding or regulating reservoir from which water could be delivered either directly or by canal into the Souris, Sheyenne/Red, Devils Lake, and James River Basins.

STATE OF NORTH DAKOTA FRAMEWORK OF GARRISON DIVERSION UNIT


CANADA
SOUTH DAKOTA
MONTANA
MINNESOTA
UPPER DES LACS LAKE
SOURIS RIVER
LAKE DARLING
LOWER DES LACS LAKE
DES LACS RIVER
SOURIS RIVER
WHITE EARTH RIVER
LITTLE KNIFE RIVER
LAKE SAKAKAWEA
LITTLE MISSOURI
KNIFE RIVER
GREEN RIVER
HEART RIVER
HEART RIVER
LAKE TSCHIDA
MISSOURI RIVER
APPLE CREEK
LAKE OAHE
LONG LAKE
CANNONBALL RIVER
CEDAR RIVER
NORTH FORK OF GRAND RIVER
PEMBINA RIVER
LITTLE PEMBINA
TONGUE RIVER
PARK RIVER
FOREST RIVER
TURTLE RIVER
DEVILS LAKE
GOOSE RIVER
SHEYENNE RIVER
LAKE ASHTABULA
ELM RIVER
RUSH RIVER
JIM LAKE
MAPLE RIVER
JAMES RIVER
WILD RICE RIVER

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As I stated before, North Dakota's objective is to deliver Missouri River water into the Souris River, the Sheyenne/Red Rivers, the James River, and the Devils Lake Basin.

A project without Lonetree prohibits or renders extremely remote the capability to deliver water to the Souris River or Devils Lake. A project without Lonetree is unable to deliver additional water to the Sheyenne or James Rivers. A project without Lonetree is engineeringly unproven and deficient from an operation standpoint. A project without Lonetree precludes any benefits to South Dakota. A project without Lonetree will not be able to deliver water to irrigation areas in extremely dry years, when it is needed most, and would severely jeopardize the recreational benefits of the Jamestown Reservoir.

When you consider the advantages of Lonetree versus Sykeston, it is amazing that even the Audubon Society doesn't fight for Lonetree. Consider these factors:

	LONETREE	SYKESTON
1. Cost	$21 million to complete $30 million expended	$43 million
2. Engineering	Proven	Unproven
3. Operation	Necessary Gravity Flow	Deficient Pumping Required
4. Canada	Approved Lonetree Construction	Approves Sykeston
5. Future	Not Foreclosed	Foreclosed
6. Wildlife	1. At 1640' 20,000 acres water 13,000 acres upland and wildlife habitat 2. At 1620' 9,000 acres water 24,000 acres upland and wildlife habitat	1009 acre Sheyenne National Wildlife is preserved
7. Fishery	Outstanding Potential	No Potential

Those of us who live and hunt in North Dakota, and who support wildlife, know that Lonetree would become one of North Dakota's finest wildlife habitat and hunting areas.

C. WILDLIFE MITIGATION

A third area of the Commission Report I want to address is the Federal Advisory Council recommended to provide oversight over the wildlife and mitigation issues. North Dakota and the Department of Interior have already established mitigation committees whose function is similar to the proposed Advisory Council.

We strongly urge that this existing Committees be used as the Advisory Council for wildlife and mitigation.

D. M & I DEVELOPMENT

The fourth area of the Commission report we are concerned about is the M & I Plan. We strongly and heartily endorse Governor Sinner's testimony to you concerning the M & I Plan.

IV. WILDLIFE AND WETLAND ISSUES

One of the most unfortunate things about the Garrison Diversion Project is the misconception that Garrison is bad for the environment and bad for wildlife. This misconception is terribly 0 unfortunate not only because it is untrue, but because North Dakota's wildlife base needs Garrison just as much as the people who want to irrigate, the cities who need water, and the people who want water for industrial and recreation purposes. Most North Dakotans are conservationists. We hunt, we fish, and we care and support our wildlife. North Dakota produces more ducks than any other states in the lower 48 states. Those of us who live and hunt in North Dakota know that Garrison Diversion would actually enhance North Dakota's environment and wildlife base. We can see the lack of water in many lakes and wetlands during dry years, and how just having canals and reservoirs full of water will enhance our environment and wildlife base. We can see that when North Dakota is dry, it doesn't raise very much waterfowl. We can see the fantastic wildlife habitat that has been developed by completed features of the Garrison Project, such as Lake Audubon and the McClusky Canal. We can see dry, alkaline, smelly lakes being freshened and developed into wildlife, recreation, and fishing havens. We can envision the Souris, Sheyenne, Red and James Rivers flowing with clear, clean water, instead of becoming stagnant. We can see that wetlands will be destroyed because of Garrison, but we know those wetlands will be replaced and that additional wetlands will be set aside forever to more than make up for that loss. We would be disappointed if the opportunities to improve our wildlife base through the Garrison Diversion Project are lost. When you think about the Garrison Diversion Project and wetlands, consider these facts:

1. North Dakota has approximately 2½ million acres of wetlands remaining. Approximately 98% of North Dakota's wetlands are not effected by Garrison. If North Dakota loses its remaining wetland resource, it will not be because Garrison Diversion is constructed.

2. Wetland losses caused by Garrison will be completely mitigated. For example, Rush Lake is a lake and wetland complex that has been completely drained. It is proposed that Rush Lake be acquired and restored for wildlife mitigation purposes for Garrison. Rush Lake, with its 7,600 acres, is undoubtedly one of the finest wildlife habitats in North Dakota and could not be restored without Garrison. Wetland losses caused by Garrison will clearly be replaced.

3. Not only will wetlands losses caused by Garrison be replaced, but Garrison requires significant wildlife enhancement, resulting in a net gain for wildlife.

4. The man-made Garrison Diversion Unit will provide the same kind of wildlife benefits as is provided by the man-made national wildlife refuges in North Dakota, such as Arrowood and J. Clark Salyer. These benefits would be additional to the mitigation and enhancement for wildlife required for the Garrison Project.

Garrison Diversion is good for North Dakota's environment and it is good for our wildlife base.

The 98% of North Dakota's remaining wetlands not affected by Garrison can only be preserved through the cooperation and diligent efforts of national environmental organizations, federal agencies, state agencies, North Dakota farm organizations, North Dakota's Governor, and North Dakota's Legislature. The North Dakota Legislature is presently considering legislation concerning North Dakota's wetlands. The first two paragraphs of that legislation states as follows:

> SECTION 1. Declaration of intent. The legislative assembly recognizes the importance of wetlands in North Dakota as a natural resource of state, national, and international significance. The legislative assembly also recognizes the importance of agriculture and water development in North Dakota, and that each of these activities has an interrelationship and an impact on wetlands. Therefore, the legislative assembly declares that a long-term, comprehensive policy is needed concerning North Dakota's wetlands.

> The legislative assembly recognizes that between two and three million acres of wetlands remain in North Dakota, and that North Dakota produces from two and one-half million to six million ducks each year, depending on the wet and dry cycle. The legislative assembly further recognizes that wetlands can moderate the extremes in water flow and have value as natural flood-control mechanisms.
>
> The legislative assembly recognizes that wetlands can aid in water purification by trapping, filtering, and storing sediment and pollutants and by recycling nutrients. The legislative assembly recognizes that some wetlands may serve as ground water recharge areas. The legislative assembly recognizes that wetlands function as nursery areas for numerous aquatic animal species and are habitat for a wide variety of plant and animal species.

As a result of that legislation, Governor Sinner has invited the National Audubon Society, the National Wildlife Federation, and other environment and wildlife groups to meet with him and other state leaders to discuss the issue of North Dakota's wetlands. Hopefully, these groups will provide the cooperation which is necessary if North Dakota is to preserve its remaining 2½ million acres of wetlands.

V. OUR PRESENT POSITION

Members of the Subcommittee, our testimony points out that we believe the National Audubon Society's objectives have been satisfied by the Commission's plan, while North Dakota is required to make extensive sacrifices under the Commission Plan. However, we do not oppose the Commission plan. The Commission came up with the best compromise that it could. While we are not satisifed, we are willing to live within the parameters of the Commission's recommendations. Thus, with the exception of the M & I plan, we urge your adoption and favorable consideration of HR 1116.

Legislative Office
P.O. Box 2793
Bismarck, ND 58502
701-224-0330

Farm Bureau & Affiliated Companies

North Dakota Farm Bureau

February 26, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on Water
& Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota Farm Bureau strongly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. Our economic, business, social, and all other aspects of our lives depend on a distribution system in North Dakota to utilize the Missouri River.

Farm Bureau is a voluntary, non-governmental organization financed by membership dues and organized to provide a means by which farmers and ranchers can work together to achieve benefits denied them as individuals. The 21,229 Farm Bureau member families represent all counties in the state of North Dakota and are an important part of the American Farm Bureau Federation, made up of over three million member families from 2,834 counties in 48 states and Puerto Rico.

Our support for Garrison Diversion was adopted by resolution of our elected voting delegates at the annual meeting on November 25-28, 1984.

We have asked the N.D. Water Users Association to testify on our behalf before your House Interior Subcommittee on Water and Power Resources hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985.

We also authorized them to include our organization as supportive of their testimony.

Thank you.

Sincerely,

James H. Marsden

James H. Marsden
Executive Vice President
North Dakota Farm Bureau

JHM/ms
Enc.

Resolution Passed In Support of Garrison Diversion by the Elected Voting Delegates of the Member County Farm Bureaus to the 42nd Annual Meeting of the North Dakota Farm Bureau, Fargo, N.D., November 25-28, 1984.

The Garrison Diversion Unit would help stabilize North Dakota agricultural production and furnish dependable municipal and rural water supplies, thereby benefiting a large portion of the state's citizens, and the benefits from reservoir construction on the main stream of the Missouri River in the form of flood control, navigation and power generation have been largely for downstream and out-of-state interests, and studies are now under way to transport by diversion water from the Missouri River in North Dakota to other states for their use both publicly and privately, and the Garrison Diversion Unit provides the only distribution system and alternative source of water available for the eastern part of the state for the development and stabilization of our agricultural production and municipal and rural water supplies. We support the Garrison Diversion Unit as a distribution system of water to areas of need in North Dakota and urge the early completion of the project, which will bring long awaited benefits to the citizens of North Dakota.

February 26, 1985

Congressman George Miller
Chairman
House Interior Subcommitte on
Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The Anamoose Chapter of the North Dakota Wildlife Federation is the second largest chapter of the Wildlife Federation in North Dakota. Our members are conservationists, farmers, hunters, and wildlife enthusiasts who know our land and wildlife resources better than anyone else because we have lived in our area all our lives. We know where the best wildlife spots are, we care about wildlife, and we support wildlife.

We also know that the Garrison Diversion project is good for wildlife. In spite of what the National Wildlife Federation or the National Audubon Society might say, the already constructed features of the Garrison Diversion Unit provide more wildlife habitat and wildlife benefits than existed before. The Lonetree Reservoir would be especially beneficial for wildlife, as it would provide much more wildlife habitat and wildlife resting cover than exists at the present time. Outside wildlife "professionals" may tell you that Garrison is bad for wildlife, but we know from experience that wildlife in North Dakota needs Garrison as much as cities, irrigators, and other users.

We join in the testimony of the North Dakota Water Users before your subcommittee hearing on February 28. The Water Users Association will also be testifying on our behalf at the hearing on Garrison. Thank you.

Sincerely,

Jerome Peerboom

Jerome Peerboom
President

/las

North Dakota
AFL-CIO

1533 North 12th Street   Bismarck, North Dakota 58501   Telephone 701-223-0784

February 26, 1985

Congressman George Miller
Chairman
House Interior Subcommittee on
Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota AFL-CIO strongly supports the diversion of Missouri River water in North Dakota. To develop the multiple uses of this natural resource in eastern North Dakota the Garrison Diversion project must be complete. Economic stability in any state depends largely upon its ability to diversify. It is not different in North Dakota. The adequate distribution of Missouri water to eastern areas of our state will greatly enhance our economic and business stability and will help us take that big step forward towards self sufficiency.

The North Dakota AFL-CIO has approximately 18,000 members. Our support for Garrison Diversion has never waivered and is embodied in the enclosed resolution. This resolution has passed unanimously at every annual convention for 10 years.

Due to the time constraints of the Water and Power resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 18, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the North Dakota Water Users Association will also be testifying on our behalf at your February 28 subcommittee hearing.

Thank you.

Sincerely,

David L. Kemnitz
President

DLK:df
opeiu 12,
afl-cio

[illegible] President   [illegible] First Vice President   [illegible] Secretary-Treasurer
Area Vice Presidents
[illegible]   [illegible]   [illegible]   [illegible] Grand Forks   [illegible] Fargo   [illegible] Dickinson

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NORTH DAKOTA LEAGUE OF CITIES
Box 2235 • Bismarck, ND 58502
(701) 223-3518

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[illegible]

OFFICE STAFF

Dr. Robert E. Johnson
Executive Director

Kevin J. [illegible]
Assistant Director

Jan Jordan
Secretary - Bookkeeper

February 25, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on
Water & Power Resources
1522 Longworth House Office Building
Washington, D. C. 20515

Dear Congressman Miller:

The North Dakota League of Cities strongly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. Our economic, business, social and all other aspects of our lives depend on a distribution system in North Dakota to utilize the Missouri River. Because North Dakota has been so heavily dependent upon agriculture, it is especially important to further diversify our economy through recreation, tourism and other possibilities. Of the 366 cities in the state, about one-half of them have water quality, water quantity problems or both.

The League of Cities has 366 cities that total over 460,000 of the 650,000 people in the state. Our support for Garrison Diversion was adopted by resolution of our members at the annual membership meeting on September 22, 1984. Attached is a copy of our supporting resolution.

Because of time constraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to submit this written testimony. Therefore, the ND Water Users Association will testify on our behalf at your February 28 subcommittee hearing.

Respectfully,

Robert E. Johnson, Executive Director

BEST COPY AVAILABLE

Garrison Diversion Project

WHEREAS: When the Garrison Dam was constructed, a promise was made by the Federal Government that there would be farmland irrigated to replace the land lost by flooding for the project, And

WHEREAS: after a considerable investment, this project has never been fully completed, And

WHEREAS: this project will provide a source of water supply for the Eastern half of North Dakota along with irrigation for farming and water for industrial growth, Now, therefore, Be It

RESOLVED: that the 27th Annual Convention of the North Dakota AFL-CIO go on record to urge the completion of this very important project, And Be It Further

RESOLVED: that we notify Governor Allen I. Olson, Senator Quentin Burdick, Senator Mark Andrews and Congressman Byron Dorgan of our continued endorsement and support of this project.

Submitted by:

Executive Board
North Dakota AFL-CIO

North Dakota
Association
of Counties

Mark A. Johnson
Executive Director

February 26, 1985

Congressman George Miller
Chairman
House Interior Subcommittee on
Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota Association of Counties strongly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. The economic, business, social, and other aspects of our lives depend on a distribution system in North Dakota to utilize the Missour River. The continuation of this water diversion project will provide benefits to all counties statewide. The North Dakota Association of Counties represents all 53 counties in North Dakota. Our support for Garrison Diversion was adopted by resolution of our members at the annual member meeting in July, 1984. Attached is a copy of our supporting resolution.

Due to the time constraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HB 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the ND Water Users Association will also be testifying on our behalf at your February 28 subcommittee hearing.

Thank you.

Sincerely,

Mark A. Johnson

Mark A. Johnson
NDACo Executive Director

Encl: 1

MAJ/epw

North Dakota
Association
of Counties

Mark A. Johnson
Executive Director

RESOLUTION 2-84.

Garrison Diversion Unit. The Garrison Diversion Unit will deliver Missouri River water to water short areas for municipal, industrial, irrigation, fish and wildlife, and recreational purposes. The Garrison Diversion Unit will therefore benefit the entire State of North Dakota, the surrounding region, and the nation. The Association supports development and completion of the Garrison Diversion Unit, in a manner consistent with the 1984 North Dakota Plan for Development of the Garrison Diversion Project.

February 26, 1985

Congressman George Miller
Chairman
House Interior Subcommitte on
Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota Ag Coalition is on record in support of the Garrison Diversion Project. This project is essential for North Dakota agriculture, as it will provide a stable feed base, diversity, and enhance the agricultural economy of North Dakota, the midwest region, and our entire country.

The Ag Coalition is composed of over 20 farm related organizations in North Dakota, including commodity groups, research, general ag organizations, and others.

Due to the time constraints of the Water and Power Resources Subcommittee hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the ND Water Users Association will also be testifying on our behalf at your February 28 subcommittee hearing.

Thank you.

Sincerely,

Bob Albers

Bob Albers
Co-Chairman
Hazen, North Dakota

/las

NORTH DAKOTA STATE BUILDING AND CONSTRUCTION TRADES COUNCIL
217 S. MANDAN ST.
BISMARCK, NORTH DAKOTA 58501
(701) 258-7340

February 26, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on
Water & Power Resources
1522 Longworth Hous Office Building
Washington, DC 20515

Dear Congressman Miller:

The North Dakota State Building and Construction Trades Council strongly supports the diversion of Missouri River water, in North Dakota, eastward via the Garrison Diversion project, for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. Our economic, business, social, and all other aspects of our lives depend on a distribution system in North Dakota, to utilize the Missouri River.

The North Dakota State Building and Construction Trades Council is comprised of approximately 7,000 members engaged in the construction industry. Our support of Garrison Diversion was adopted by resolution of our members, at the 16th Annual Convention of the North Dakota State Building and Construction Trades Council, which was held on January 17 and 18, 1985. Attached is a copy of our supporting resolution.

Due to the time constraints of the Water and Power Resources Subcommittee's hearing, on the Garrison Diversion Unit Commission Final Report and HR 1116, on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the North Dakota Water Users Association will also be testifying on our behalf, at your February 28, 1985, subcommittee hearing.

Thank you.

Sincerely,

David A. Funston
President, NDBCTC

DAF:cg

President
Executive Director
DAVE FUNSTON
Bismarck, ND

Vice Presidents
GARY McKENZIE
Fargo, ND
RAY REINKE
Fargo, ND

Secretary-Treasurer
DICK BERGSTAD
Minot, ND

Trustees
JOHN BINA
Grand Forks, ND
KEN GIBNEY
Minot, ND
MIKE DRISCOLL
Bismarck, ND

RESOLUTION #______________

Committee Action:______________

Second:______________

GARRISON DIVERSION PROJECT

Floor Action:______________

WHEREAS; When the Garrison Dam was constructed, a promise was made by the Federal Government that there would be farmland irrigated to replace the land lost by flooding for the project, and

WHEREAS; after a considerable investment, this project has never been fully completed, and

WHEREAS; this project will provide a source of water supply for North Dakota along with irrigation for farming and water for industrial growth, and

WHEREAS; water that is not used in North Dakota will almost certainly be claimed for use by others, such as those who seek to off-set the Ogallala aquifer depletion, and

WHEREAS; the Garrison Study Commission's recommendation was not in the best interests of North Dakota,

THEREFORE BE IT RESOLVED; that the 16th Annual Convention of the North Dakota State Building and Construction Trades Council go on record to urge the completion of this very important project as originally proposed, and

BE IT FURTHER RESOLVED; that we notify Governor George Sinner, Senator Quentin Burdick, Senator Mark Andrews and Congressman Byron Dorgan, of our continued endorsement and support of this project.

Submitted by:
Bis/Man Building & Const. Trades Council

HARRY J. ARGUE, Executive Director
KEITH C. MAGNUSSON, Associate Director
CHERYL A. THOMPSON, Education Director
MARIE S. HOERNER, Administrative Assistant

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Charles Feeney
[redacted] State Bank
Jack C. Hansen
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American State Bank
Williston
Jerry Molloy
First National Bank
Bowbells
Morris T. Nelson
Scandia American Bank
Stanley
Peter W. Nielsen
First National Bank
Grand Forks
Donald Peterson
Lakeside State Bank
New Town
Richard H. Solberg
State Bank of Fargo
Joseph Zilkowski
First National Bank
Belfield
Curtis Zimbelman
First Western Bank
Minot

NDBA
NORTH DAKOTA
BANKERS ASSOCIATION

February 26, 1985

The Honorable George Miller
Chairman
Interior Subcommittee on Water and Power Resources
U. S. House of Representatives
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Miller:

The North Dakota Bankers Association solidly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreational, wildlife and others. Our state's economic, business, social and all other aspects depend on a distribution system in North Dakota to utilize the Missouri River. This is vital as well to the future of banking in North Dakota.

Representing 173 of the 178 state and nationally chartered banks in the state, the North Dakota Bankers Association has adopted numerous resolutions in support of the Garrison Diversion project. Our organizations full membership has repeatedly gone on record in support of this project and the Executive Council has subsequently reaffirmed this support.

Due to the time constraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission final report and HR 1116 on February 28, 1985, I would like to join in the testimony of the North Dakota Water Users Association.

Thus, the North Dakota Water Users Association will also be testifying on behalf of the North Dakota Bankers Association at your February 28 hearing.

Thank you for your attention to our views.

Sincerely yours,

Harry J. Argue

Harry J. Argue
Executive Director

HJA:msh

400 East Broadway, Suite 417 / P.O. Box 1438 / Bismarck, ND 58502
(701) 223-5303 / TELEX (TWX) 9106772336

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north dakota
water
resource
districts
association

Michael A. Dwyer, Executive Secretary

ebruary 26, 1985

Congressman George Miller
Chairman
House Interior Subcommitte on
  Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota Water Resource Districts Association believes that diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others is the single most important need of the State of North Dakota. Our eastern rivers simply do not have an adequate supply for the present or the future, and our groundwater resources are limited. The Missouri River is our only reliable source of water.

Water resource districts cover every acre of land in North Dakota, and the local water managers are appointed officials responsible for the development and management of North Dakota's water resources for all of its citizens. The Water Resource Districts in North Dakota unanimously support the Garrison Diversion Unit.

Due to the time constraints of the Water and Power Resources Subcommittee hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the ND Water Users Association will also be testifying on our behalf at your February 28 subcommittee hearing.

Thank you.

Sincerely,

Harry Zacher

Harry Zacher

/las

GNDA

GREATER NORTH DAKOTA ASSOCIATION
N. D. STATE CHAMBER OF COMMERCE
BOX [illegible] [illegible] THIRD AVENUE SOUTH FARGO, NORTH DAKOTA [illegible] AREA CODE 701 PH [illegible]
BOX [illegible] [illegible] SOUTH 7TH STREET BISMARCK, NORTH DAKOTA [illegible] AREA CODE 701 PH [illegible]

February 26, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on Water
and Power Resources
1522 Longworth House Office Building
Washington, DC 20515

Dear Congressman Miller:

The Greater North Dakota Association strongly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion Project for irrigation, municipal, rural, industrial, recreation and wildlife purposes. North Dakota's future economic and social development is closely tied to the distribution of Missouri River water to areas of inadequate water supply within the state.

The Greater North Dakota Association is comprised of more than 2,500 members engaged in business, industry, agriculture, and the professions. The Association was an early supporter of the Pick-Sloan Plan and the Garrison Diversion Project. It has, on numerous occasions, reaffirmed its support. On December 6, 1984, the Board of Directors again endorsed the proposed Garrison Diversion Project.

Due to the time constraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the North Dakota Water Users Association will be testifying on our behalf at your February 28 subcommittee hearing.

Sincerely,

Dale O. Anderson
President

DOA/clk

Exploring, expanding and enhancing North Dakota horizons

the North Dakota Retail Association
206½ North 6th Street • Bismarck, ND 58501 • 701-223-3370
ARTHUR W. WHEELER
President

February 26, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on
Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D. C. 20515

Dear Congressman Miller:

The North Dakota Retail Association strongly supports the diversion of Missouri River water in North Dakota eastward via the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. Our economic, business, social, and all other aspects of our lives depend on a distribution system in North Dakota to utilize the Missouri River.

Our Association is so dependent on a good agricultural base that will produce a viable economic system for North Dakota, that to allow needed water to pass through our state without allowing it to perform its useful functions to man is an unconscionable thought.

The North Dakota Retail Association is comprised of 800 members engaged in the business of providing goods and commerce in a retail mode. Our support for Garrison Diversion was ratified by our Board of Directors in September 1984.

Due to the time constraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association. Thus, the North Dakota Water Users Association will also be testifying on our behalf at your February 28th subcommittee hearing.

Thank you.

Sincerely Yours,

Arthur Wheeler

Arthur W. Wheeler
President

AWW/jm

**NORTH DAKOTA ASSOCIATION
OF SOIL CONSERVATION DISTRICTS**

OWNER AND OPERATORS OF LINCOLN-OAKS NURSERIES
3310 Airport Expressway
Box 1601, Bismarck, North Dakota 58502-1601
(701) 223-8518 • 223-8575

OFFICERS

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P.O. Box 1296
Minot ND 58701
852-0167

PRESIDENT ELECT
Thomer Isaak
Streeter ND 58483
327-8368

EXECUTIVE VICE PRESIDENT
SECRETARY
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Box 1601
Bismarck ND 58502
223-8518

TREASURER
Lee A. [illegible]
Box 1601
Bismarck ND 58502
223-8575

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362-7450

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P.O. Box 1296
Minot ND 58701
852-0167

Thomer Isaak
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327-8368

Elmer Gilby, Jr.
Roseglen ND 58775
743-4220

Verdale Jacobs
RR 1 Box 32
Amidon ND 58620
879-6255

Lane Knudsen
Lemmon SD 57638
376-3277

February 26, 1985

Honorable George Miller, Chairman
Interior Sub-Committee on Water & Power Resources
U.S. House of Representatives
1522 Longworth
House Office Building
Washington, D.C. 20005

Dear Congressman Miller:

Your Sub-Committee on Water and Power Resources is scheduled to hear testimony on the Garrison Diversion Unit in North Dakota. We are sorry we cannot be present at this time to present testimony in favor of this project.

This letter authorizes Mr. Michael A. Dwyer, Executive Vice President, North Dakota Water Users Association, to speak on our behalf at this hearing.

North Dakota's 62 Soil Conservation Districts have been continuous supporters of the Garrison Diversion Project. Our policy states "We feel the construction and completion of this project has the first und highest priority for water development in North Dakota". We need the enhancement this project can bring to our state. Agriculture, fish and wildlife, recreation, benefits to our urban and rural water system are all going to be aided by this project.

Our Association, and the districts and their cooperators, have as one of its objectives "To promote the welfare of Soil Conservation Districts and the people therein". We must protect our natural resource base "Soil and Water" if we are going to remain viable in our agricultural pursuit and help assure our Nation of adequate water supplies as well as provide our land with the capabilities of producing needed supplies of food and fiber.

We are told the world food demand has begun its second doubling since mid-century. Pressures on land have become so intense that close to half the world's cropland is losing topsoil at a rate which is undermining its long term productivity. Since agriculture is the foundation of the global economy, this loss of topsoil, if unarrested, will undermine the economy itself. The loss of 25 billion tons of topsoil from our cropland each year is the price we pay for shortsighted agricultural policies. Water is needed for the crop production and residue we use for soil erosion control.

North Dakota and our Nation needs this project. Mr. Dwyer will present a case we can and do endorse and we urge your committee to also favorably endorse.

Sincerely,

NORTH DAKOTA ASSOCIATION OF
SOIL CONSERVATION DISTRICTS

Bud Lannoye

Bud Lannoye
Executive Vice President

BL/pd

North Dakota
STOCKMEN'S ASSOCIATION

407 South Second Street — Dial (701) 223-2522
Bismarck, North Dakota 58501

Wade Moser, Executive Vice President
[illegible], Chief Brand Inspector

NORTH DAKOTA
STOCKMAN
Official Magazine
[illegible], Editor

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RICHARD TOKACH, President
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EARL STOLTENOW, Vice President
[illegible]
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[illegible]
[illegible]
LES ANDERSON
[illegible]
DELBERT MOORE
[illegible]
JACK DAHL
[illegible]
[illegible]
[illegible]
KYLE MILLER
[illegible]
RAYMOND SCHNELL
[illegible]
DAVE M. ROBINSON
[illegible]
[illegible]
[illegible]
J.L. CONNOLLY
[illegible]
[illegible]
[illegible]

BOARD OF DIRECTORS
DISTRICT 1
ARDEN BELL
[illegible]
PADDY PETERSON
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

DISTRICT 2
[illegible]
[illegible]
STAN [illegible]
[illegible]
CHARLES [illegible]
[illegible]
TOM [illegible]
[illegible]

DISTRICT 3
JERRY [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
PAUL [illegible]
[illegible]

DISTRICT 4
TOM [illegible]
[illegible]
DUANE HANSON
[illegible]
[illegible]
[illegible]
RAY MEYER
[illegible], SD

DISTRICT 5
[illegible]
[illegible]
[illegible]
[illegible]
DEAN MEYER
[illegible] City
EARL PELTON
[illegible]

DISTRICT 6
[illegible]
[illegible]
TOM [illegible]
[illegible]
JACK [illegible]
[illegible] Lake
JAMES [illegible]
[illegible] Lake

February 27, 1985

Congressman George Miller, Chairman
House Interior Subcommittee on
  Water & Power Resources
1522 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Congressman Miller:

The North Dakota Stockmen's Ass'n strongly supports the Garrison Diversion project for multiple water uses, including irrigation, municipal, rural, industrial, recreation, wildlife, and others. Our economic business, social, and all other aspects of our lives depend on a distribution system in North Dakota to utilize the Missouri River.

The North Dakota Stockmen's Ass'n is comprised of 2500 members engaged in the business of raising cattle. Our support for Garrison Diversion was adopted by resolution of our members at the annual member meeting on June 12, 1984.

Due to the time contraints of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit Commission Final Report and HR 1116 on February 28, 1985, we would like to join in the testimony of the North Dakota Water Users Association, thus submitting this written support.

Thank you.

Sincerely,

Wade Moser
Exec. Vice President

WM/mm

NORTH DAKOTA ASSOCIATION OF RURAL ELECTRIC COOPERATIVES

REC

February 26, 1985

Honorable Congressman George Miller, Chairman
House Interior Subcommittee on Power
and Water Resources
1522 Longworth House Office Building
Washington, DC

Dear Congressman Miller:

The North Dakota Association of Rural Electric Cooperatives represents over 90,000 rural electric consumer-families in North Dakota. Ever since its inception about 28 years ago, this Association has by membership resolution each year strongly endorsed and supported the Garrison Diversion Project in order to meet the water and hydro-power needs of this State and Region and to benefit the future generations of families who will inhabit this land.

On Thursday, February 28, 1985, your subcommittee on Power and Water Resources is scheduled to take testimony on HR 1116, the Garrison Diversion Commission Report. We would like to take this opportunity to respectfully inform you and other members of the House Interior Subcommittee that this Association joins in support of the testimony which will be delivered by the North Dakota Water Users Association and by the Governor of our State, the Honorable George Sinner.

The following resolutions have been adopted by our rural electric membership:

On Garrison Diversion

> We believe completion of Garrison Diversion is essential towards advancing agricultural and economic development in North Dakota. We reaffirm our support for continued federal funding of this important project because of the multiple benefits it will provide the citizens of this State.
>
> We oppose acquisition of mitigation acres through condemnation by the U.S. Fish and Wildlife Service and insist that such acreage be limited only to willing seller agreements. Land already owned or leased by the FWS should be included for mitigation purposes in the project.
>
> Because of the ecological impact of canal construction, we urge that pipelines be substituted wherever practicable to mini-

P.O. BOX 727 - MANDAN, N.D. 58554 - PHONE 701/663-6501

mize public opposition to this project which is so vital to the economic future of this semi-arid state.

On Pick-Sloan Plan

We recognize the water development benefits promised to Upper Missouri Basin states to compensate for the Missouri River bottomland permanently flooded in order to provide down-stream flood control as part of the Pick-Sloan Plan (1944 Flood Control Act).

Any changes from the original authorization for these federal projects should not jeopardize this region's hydro-electric users by changing preference clause provisions or increasing hydro-electric rates to accommodate the debt obligation associated with the construction of dams which are presently assigned to irrigation. We oppose any attempt to alter the benefits to preference customers which would result in an unmerited increase in the price of hydropower to repay an investment which is not the responsibility of the hydro-electric consumers.

We respectfully request that the House Interior Subcommittee on Power and Water Resources give favorable consideration to the testimony you receive from these citizens of North Dakota.

Sincerely,

Leland G. Ulmer,
Exec. Vice Pres. & Gen. Mgr.

cc: Congressman Dorgan

TESTIMONY OF

VERNON FAHY, STATE ENGINEER AND SECRETARY
NORTH DAKOTA STATE WATER COMMISSION

PRESENTED TO

SUBCOMMITTEE ON POWER AND WATER RESOURCES
OF
HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

CONCERNING
HOUSE BILL NO. _____

FEBRUARY 28, 1985

Mr. Chairman and Members of the Committee:

My name is Vernon Fahy. I am State Engineer and Secretary to the North Dakota State Water Commission.

The Garrison Diversion Unit Commission was appointed by the Secretary of the Interior in August of 1984 to: to review the Garrison Diversion Project, study possible alternatives, and make recommendations to the Secretary of the Interior concerning the contemporary water needs of North Dakota and how they might be satisfied by project development.

The Commission held public hearings in Bismarck and Fargo prior to the final hearing held in Minot on December 13 and 14, 1984. The principal agenda item of this meeting was the Commission's Preliminary Final Report. This report was developed by the Commission technical staff using information gathered through the public hearing process or from technical workshops in which the Commission technical staff introduced its proposals. Some of these staff proposals were carried forward into the Preliminary Final Report.

The Minot hearing was a marathon affair during which proponents and opponents of the project presented their proposals to the Commission. It was obvious from the beginning that the Lonetree Reservoir would become the central issue in the Commission's final recommendations.

North Dakota viewed the completion of Lonetree Reservoir as essential to the efficient delivery of water in the Missouri River Basin and, ultimately, to other areas of the state when problems with Canada could be solved.

The North Dakota Compromise Plan was presented to the Commission with strong support from the Legislature, the Congressional Delegation, the Governor and the Governor-Elect, state agency directors, state-wide water users organizations, municipal and county officials, and private citizens. The presentation was technical in nature and specific in its comparisons of the state proposal to that advanced by the technical staff in the Preliminary Final Report.

The North Dakota Compromise Plan called for the completion of Lonetree Dam and Reservoir, which is approximately 60 percent complete, as opposed to the Commission staff proposal to construct the Sykeston Canal, a costly by-pass canal around the almost-completed Lonetree Reservoir. State witnesses called the Commission's attention to the 200-foot difference in elevation between the beginning of the Sykeston Canal and its terminus at the New Rockford Canal and the costs associated with construction of features to accommodate this elevation differential. They pointed out the problems that will be caused by fluctuation in the Jamestown Reservoir, a facility built many years ago by the Bureau of Reclamation as a part of the original project. They also testified that the elimination of Lonetree Reservoir would allow saline water, which has accumulated in Lake Audubon and the McClusky Canal, to be transported through the Sykeston Canal directly into Arrowwood Refuge and Jamestown Reservoir. They outlined the future potential of Lonetree as a prime recreational and fishery site, and agreed that no such use would be made of the reservoir until bi-national consultations were completed.

The North Dakota Compromise included a reduction in irrigated acreage from the 250,000 acres authorized by Congress in 1965 to 113,000 acres confined to the James River Basin plus 17,580 acres on Indian Reservations. It also included a proposal to serve water resource needs in the James River Basin in South Dakota. The state plan included the construction of a municipal-industrial outlet from Lonetree Reservoir to the Sheyenne River to satisfy the needs of Fargo, Grand Forks, and other communities along the Sheyenne-Red River system. The plan emphasized that future municipal needs would be accommodated by augmenting the flows in other streams when bi-national negotiations had been completed and the balance of the work authorized by the 1965 Act could be completed.

The state included $60 million for wildlife mitigation and enhancement purposes. Also included in the plan were the costs of construction for an alternative to the Taayer Reservoir. Audubon and other environmental groups had opposed Taayer because water would have to be stored in Kraft Slough, a wetland the opposition considered "unique" for North Dakota.

The North Dakota Compromise recognized the need for additional recreational features to supplement those already in existence and recommended the appropriation of $8 million to be matched by the state in developing the program.

Costs of the North Dakota Compromise Plan were estimated to be $695,470,000.

Since the Audubon Society's objectives were contained in the Preliminary Final Report, it did not present a plan for Commission approval. The Society focused its efforts on the elimination of Lonetree Reservoir and substitution of the Sykeston Canal. It also pushed hard for the elimination of certain irrigation areas and elimination of the delivery of water to satisfy South Dakota water needs. It strongly supported a $400 million proposal to build water supply and treatment systems for over 100 communities, a proposal which the state witnesses described as unrealistic because of the excessive costs to the communities.

After much discussion, numerous recesses, and several motions, the Commission adopted a recommendation which: eliminated Lonetree Reservoir and substituted the Sykeston Canal; eliminated water delivery to South Dakota; provided 113,000 acres of irrigation to the James River Basin; provided irrigation and other benefits to Indian Reservations; and established several boards, or commissions, to monitor project compliance.

Once Lonetree Reservoir was eliminated by an 8 to 4 vote the long process moved swiftly to its conclusion. In spite of an extremely well-articulated statement of support given by Chairman Treen and strong endorsement from Commissioners O'Meara and Paulson, the North Dakota Compromise Plan was rejected in favor of the Audubon-backed proposal.

Costs of the plan as finally adopted are estimated to be $1,119,363,000.

In a last ditch effort to salvage some benefits for municipal and industrial development, Governor Allen Olson and Governor-Elect George Sinner contacted Chairman Treen to urge him to convince his Commission to recommend a $200 million appropriation for the state to use as needed for municipal and industrial water development. This would replace the unrealistic $400 million proposal contained in the final recommendation. Chairman Treen felt that unanimous consent of the Commission would be required to include this change. When Commissioner James G. Teer refused to approve the proposal, it was not written into the final report.

The final decison of the Garrison Diversion Unit Commission, regardless of the mechanics used to reach it, was based on the question of whether this state should devote major resources to provide a wetland base for replacement of wetlands lost in other states by over development, or whether North Dakota should be allowed to utilize the waters of the Missouri River for long-range multi-purpose water development.

It is absolutely essential for everyone to recognize that under the Commission plan Lonetree Reservoir is not abandoned - it is only deferred. The distribution of the waters of the Missouri River in amounts necessary to satisfy the needs of the people of central and eastern North Dakota and to satisfy the needs of South Dakota depends on the completion of this structure sometime in the future.

The Flood Control Act of 1944 reserved to the Upper Missouri Basin States adequate supplies of water for development in return for the sacrifices made to provide the downstream states relief from disastrous flood events. North Dakota has been depending upon the promises made in 1944 and we urge this Committee and Congress to help us move forward in our water development program through the enactment of appropriate legislation.

Mr. Chairman and members of the Committee, the State has agreed to many changes in the Garrison Diversion Project since 1965 in order to maintain harmony and keep the project moving foroward. We have given priority to the concerns of Canada and we have worked with the fish and wildlife agencies to meet their concerns. We have successfully defended the project in the courts many times and we believe that we made a technically superior case before the Commission in favor of the North Dakota proposal. Although our position was not sustained by the Commission in its final decision we feel we must move forward now and build the facilities necessary to serve the people in the project area.

* * * * * * *

March 10, 1985

The Honorable George Miller
Chairman
Subcommittee on Water and Power Resources
1324 Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

Recently, your subcommittee held a hearing on legislation implementing the Garrison Diversion Unit Commission recommendations. Secretary Clark appointed me to serve on the panel, as one of its twelve members.

I recently had the opportunity to review some of the testimony presented to your subcommittee at the end of February. Since Mr. Fahy, North Dakota's State Water Engineer, singled me out for my action last December regarding the State's proposed municipal water supply proposal, an explanation is appropriate. I would ask that this letter be included in the hearings record on the subcommittee's bill, H.R. 1116.

As a Commissioner, it was difficult to understand North Dakota's position on municipal and industrial (M&I) supply. Throughout the Commission process, the state's position repeatedly changed.

To understand my decision not to approve a proposal that neither the Commission nor its staff had seen, let alone understood, it is important to review the sequence of events throughout the life of the Commission regarding M&I.

M&I AND GARRISON AS AUTHORIZED

It must be recognized, as my fellow panel members and I learned, that M&I water is and has been an authorized function of the Garrison Diversion Unit since it was enacted into law in 1965. Under the original plan, up to 14 towns (unidentified and unselected in the 20 years since congress approved the project) would be eligible for municipal water service from Garrison once the system was built.

REVIEW OF GARRISON M&I

In 1983, an independent analysis of Garrison's M&I program was completed. This was submitted to the Commission during its proceedings and I had the opportunity to review it. An informal survey was made of some 35 towns in North Dakota with prospective interest in being among the 14 selected for municipal project service once the system was built. The survey was intended to determine which of these towns, if any, had signed contracts for

Garrison project water or anticipated doing so. The results indicated that in 17 years since Congress passed the law authorizing Garrison, only one city, the City of Minot, had contracted for project water and it was obtaining some municipal water through a temporary system, pending completion of the Garrison features in the Souris area.

Some said that they didn't anticipate using Garrison water. Others indicated that the long delays required them to identify and to build other systems -- and not wait for project water.

According to the study, "these interviews revealed that providing a municipal supply is only an incidental purpose of Garrison Diversion as it is currently designed." The study goes on to conclude that "it appears that over the past years since conceptualization of the project, municipalities have found the Garrison project water too costly an alternative or have needed to develop alternative supplies to meet their present needs. For these communities, Garrison project water is no longer needed." (A Water Strategy for North Dakota Including an Alternatives Analysis of Garrison Diversion Unit: A Discussion Document, 1983)

Under the terms of the authorized project, the municipal water users were required to pay the high cost of storing the water for year round use and pay for the cost of treatment. Those costs were effectively a barrier to Garrison project benefits. In other words, the projected costs were high enough to preclude the likely users from receiving the benefit.

THE COMMISSION DIRECTIVE

In creating the Commission, the Congress gave clear direction for consideration of issues by the Commission. The amendment passed into law declared that Garrison, as authorized, raised "significant" issues including economic, international, and environmental concerns and directed the Secretarial Commission "to propose development alternatives which will lead to the early resolution of the problems identified." (P.L. 98-360)

The general directive from Congress was that the Commission was to "examine, review, evaluate, and make recommendations with regard to the contemporary water development needs of the State of North Dakota..." (P.L. 98-360)

The legislation spells out, in some detail the aspects of M&I that should be reviewed. In addition, section 2 of the legislation specifies that the Southwest Pipeline Project should be considered for federal funding. Very clearly, the North Dakota senators, as sponsors of the amendment, highlighted the Southwest Pipeline Project as an alternative -- or at least one of the alternatives -- to the project as designed and proposed.

I found myself reading and rereading the directives from Congress repeatedly throughout the commission process. Congress pointed water development in a new direction in North Dakota and M&I service was to be the new centerpiece of that program.

COMMISSION HEARING -- NORTH DAKOTA WANTS M&I

The State of North Dakota made a comprehensive and thorough presentation on its needs and desires to the Commission. Some 60 or 70 witnesses, collectively and in a highly structured fashion, made the presentation. Witness after witness -- from around the state -- came before the panel seeking municipal water from Garrison.

That M&I water quality and quantity needs were a serious concern for North Dakota was best explained by Gene Christianson of the North Dakota State Department of Health. Drinking water in North Dakota was bad throughout the state. According to the Department of Health, "82 percent of the city and rural or regional water supply systems, serving about 155,000 people, currently are at or exceed (violate) these (federal) primary and secondary standards. Approximately one-half of these systems are outside of the Garrison Conservancy District."

Attached to Christianson's testimony, in the three large binders incorporating the state's presentation, is a list of almost 200 cities and town, 90 of which are located outside the conservancy district boundaries. That testimony further revealed that 187 towns exceeded the standard for total dissolved solids, 124 exceeded manganese, 100 exceeded sulfate, 66 exceeded iron, 24 exceeded flouride, 19 chloride, 12 exceeded selenium, four exceeded arsenic, among others.

Others testifying on behalf of M&I included the mayors of cities such as Minot and West Fargo, as well as the Grand Forks City Engineer, and the Water Superintendent of the City of Fargo. Other groups seeking support for M&I included the ND Retail Association, the ND League of Cities, and ND Rural Water Systems Association and others. In fact, many commissioners commented and observed that there was far more interest presented at the hearings for M&I than for irrigation -- and all by North Dakotans.

North Dakotans specified the contemporary water needs for the state, and clearly, it is municipal and industrial water supply. This assessment would be ratified and affirmed by North Dakota political leaders within a few weeks.

NORTH DAKOTA REPORT

In early October, the state published and released the North Dakota Plan for Development of the Garrison Diversion Unit. This new document summarized much of the testimony presented by the state at the September Bismarck hearing. This new plan revised the state's development priorities and added M&I service to some 111 cities and towns. When this document was released, speaking for the state, Murray Sagsveen, of the Governor's Executive Coordinating Council told the press: "We're suggesting the Garrison Diversion Unit Commission move (non-agricultural water movement) to the top of the list," and went on to state further, "...we're suggesting ...the Garrison Diversion Unit be adapted to the newly recognized water needs of the municipalities." (The Bismarck Tribune, October 3, 1984)

The new Garrison priority was now M&I according to the state.

SENATOR ANDREWS' TESTIMONY

On October 17, the Commission held a business meeting in Washington. At that time, Senator Andrews asked to appear before the panel. Commissioner Ingersoll asked Senator Andrews if M&I were the most important aspect of Garrison and he agreed. In his presentation, the senator presented the Commission with five well reasoned guidelines -- principles -- to assist the Commission in its work and encouraged the Commission to adopt them. They are:

(1) Recommendations should be adopted which provide benefits to the greatest number of North Dakotans.

(2) Recommendations should be adopted which are the most cost-effective.

(3) Recommendations should be adopted which are the least environmentally damaging.

(4) Recommendations should be adopted which can be implemented and constructed in the shortest period of time with the fullest cooperation of all parties involved.

(5) Recommendations should be adopted which require the acquisition of the least amount of privately owned land.

Without a doubt, these principles pointed the Commission towards municipal and industrial water supply and away from irrigation. M&I positively responded to each of the five principles and correspondingly, irrigation did not.

Andrews' presentation was consistent with that of the representatives of the state and many of its interested citizens as well as the official spokesman for the state, Mr. Sagsveen. The political leadership of the state was charting a new direction for water development in North Dakota.

COMMISSION TECHNICAL WORKSHOP

The Commission held a series of technical workshops on various issues, including municipal water supply. At the workshop the Commission staff, for the first time, laid out a large plan for providing M&I water to almost 200 North Dakota cities. The problems previously identified by the state were discussed, emphasizing poor water quality. The biggest stumbling block to resolving these problems -- problems existing throughout the state -- was funding for these projects, including the Southwest Pipeline Project.

OPPOSITION TO SOUTHWEST PIPELINE

In mid-October, the North Dakota Water Users Association formally wrote the Commission asking that federal support not be considered for the Southwest

Pipeline Project. Specifically, the Water Users Association, joined by the District, Stark, Billings, Dunn Rural Water Cooperative, Southwest Rural Water Cooperative and Golden Valley Rural Water Cooperative "not" consider the Southwest Pipeline Project as an alternative to Garrison as authorized or the new state plan for development.

The statute creating the Commission all but directed our panel to fund the Southwest Pipeline Project by specifically naming it, the only project given such status. The first sign of conflict within the state arose at this time. The position of the state would become less clear in the weeks ahead.

FARGO HEARING -- STATE FORMALLY OPPOSES SOUTHWEST FUNDING

On November 16, the Commission met in Fargo to receive testimony on its first report with 25 different alternatives and various building blocks. The message from the state, with regard to M&I began changing. Testifying for the State, Murray Sagsveen of the Governor's Executive Coordinating Council, told the Commission that the state opposed federal funding for the Southwest Pipeline Project, largely echoing the reason and position taken by the ND Water Users Association and the local promoters.

The next day at the business meeting, notwithstanding the position of the state and others, the Commission adopted a work plan retaining the Southwest Pipeline Project as a development option.

COMMISSION DROPS SOUTHWEST

Two weeks later, on November 28, the Commission held a business meeting in Washington to evaluate the work plan adopted in Fargo and to adopt a Preliminary Final Report. The Commission staff prepared a "Supplement to the Interim Staff Report of November 5," which was distributed to Commission members for consideration. The Southwest Pipeline was incorporated along with other M&I proposals.

During our deliberations, the Commission agreed to delete it from the Preliminary Final Report, given the state's opposition to fund and support Southwest.

THE PRELIMINARY FINAL REPORT

The Commission's decisions of November 28 were published and released about a week later. On December 5, the Commission made a formal finding in its Preliminary Final Report that "municipal, rural and industrial systems for treatment and delivery of quality water should be incorporated as a major feature of its plan." In that report, a statewide network of 20 separate municipal water delivery systems was designed and approved -- meeting the needs of more than 400,000 North Dakotans in 157 identified communities. It was an ambitious $400 million program designed to truly put the Missouri River to work for the people of North Dakota. Compared to the authorized project, which would serve only 800 farmers and 14 towns, this proposal would serve two out of three North Dakotans!

This plan met the test of the principles established in Fargo. It would serve more people both cost effectively and in an environmentally sound manner. More importantly, the contemporary water needs of North Dakota were identified and recommendations made to meet those needs.

And, it should be noted that the work of the Commission staff on M&I was performed by engineers from the North Dakota Department of Health. After the towns were identified, engineers from the Bureau of Reclamation's Engineering and Research Center in Denver designed the systems, developed the physical layouts of pipelines and other M&I project features, and did the cost estimates for each of the 20 systems.

NORTH DAKOTA CHANGES ITS POSITION ON M&I

Within a few days of the of the release of the December 5 Commission report, the state reversed its position on M&I and announced they would offer a new development proposal in which 18 of the 20 M&I delivery systems would be eliminated. While the details wouldn't be known until Minot, public statements by ND officials made it clear that another new plan would be advanced. Some 90 days earlier, the state made the original plea and stated the case for M&I, but were now reversing themselves on the eve of the final commission meeting.

COMMISSION FINAL HEARING -- MINOT

At the Minot hearing, the question of federal financial support for the Southwest Pipeline Project was again raised, and it was clear that the Commission was prepared to give it support. Financial support for that project was there for the asking. But again, the state opposed it.

THE PAULSON MOTION

Commissioner Paulson from Fargo, North Dakota carried the new state proposal at the Commission's concluding business meeting in Minot a day following the hearing. Not only was the Southwest Pipeline Project eliminated from consideration, pursuant to the state's position, but almost all of the Commission recommended M&I package was proposed for elimination. In fact, the document explaining the Paulson motion indicated that the federal commitment for M&I from Garrison would be reduced to from $400 million to a mere $5 million.

According to the Paulson amendment:

> North Dakota has an existing program for developing water supply systems for those cities not located adjacent to major river resources. This program has already resulted in significant progress toward development

of the Southwest Pipeline Project, and will assist additional cities with water supply and water quality problems.

Quite clearly, North Dakota did not want federal support for the Southwest Pipeline Project.

COMMISSION VOTES TO SUPPORT M&I

The Commission debated the Paulson motion, the state plan with both Lonetree and the reduced M&I plan, for some 14 hours and voted to reject it. The panel then voted to recommend the Commission-developed comprehensive plan. When that happened, the state was all but invited to ask for the Southwest Pipeline Project. After the key vote, the state retained its position of opposition to funding for that pipeline project.

Representatives of the state and the North Dakota Water Users Association appeared before the panel declaring that the Commission M&I plan would never be affordable. Commissioner O'Meara argued that the state wanted to proceed on its own. Mr. Dwyer, on behalf of the water users, rejected support for Southwest. The Commission, in response to state concerns about user cost, added terms of financial support. The Commission then concluded its work, approved a plan, and somewhat wearily, adjourned for the final time with its duties discharged.

NEW STATE PROPOSAL ON M&I AFTER THE COMMISSION ADJOURNED

Late the next Monday, two days after the Commission concluded its business, Governor-elect Sinner and Governor Olson sent a two-and-a-half page letter to the Commission asking for consideration of a new M&I proposal. Among its key features contained in the outline was financial support for the heretofore rejected Southwest Pipeline Project. The state was now asking for what the state previously rejected.

Chairman Treen submitted the letter from the two North Dakota leaders to each member of the Commission, with the draft final report, with the assurance that it would be forwarded to Secretary Clark if it received unanimous support from the members of the Commission. When we received the draft final report, I carefully reviewed it.

My review concluded that the proposal had a number of problems which included:

o the proposal was quite vague, and it was therefore, difficult to make an informed judgment given the 48-hour turnaround required.

o the commission based its work on a "contemporary needs test" with much of the Commission work on M&I performed by the ND Health Department. This work appeared to be arbitrarily rejected by the governors for other considerations, the basis and justification for which were unclear and unstated.

o the proposal fails to indicate how the state would reconfigure the plan and which cities and towns would be eliminated.

o the commission acted in accordance with the information developed pursuant to the mandate congress gave it. To disregard that, for a new plan no one had seen or evaluated, the contents of which are largely unknown, was without merit.

o the state was asking for reconsideration of a major element of the commission plan after we adjourned. I considered that improper and unfair. The Commission work was completed. The state had ample opportunity to present its views on these matters. It chose to reject M&I and support for the Southwest project, after having justified it in the first place. I did not consider the proposal appropriate either substantively or procedurally.

Based on my review of the new proposal, I felt there was no alternative but to reject it, and I notified the Commission of my inability to support it.

Several days later, I received a letter from Mr. Michael Dwyer of the North Dakota Water Users Association. The letter castigated me for failing to support the new state plan. I found that interesting since it was Mr. Dwyer who appeared before the Commission during its final deliberations in opposition to Commission efforts to put together a workable M&I program. Had Mr. Dwyer advanced the state M&I plan at that time, I'm confident that the Commission would have given it serious consideration.

THE COMMISSION ACTION

M&I was a development step-child in the authorized Garrison project. The Commission, created by the Burdick-Andrews amendment and by Secretary Clark, listened to the leaders of North Dakota, its citizens, and others. A clear message from them was that M&I water was needed throughout the state.

The contemporary needs test was invoked and M&I came out the clear winner. M&I was greatly expanded and irrigation was substantially reduced. Many of my fellow commissioners made statements to this effect at the concluding meeting of the Commission. I and others recognized that M&I was a second class priority among Garrison irrigation supporters. Many Commissioners noted the statements made by the ND State Water Engineer, Vern Fahy, appearing in a lengthy story published by the Grand Forks Herald, regarding M&I. Fahy told the paper that he had no plans for distributing water to cities and towns and couldn't list which cities could or would use the water. He stated to the press, "I'm (Fahy) not wasting my time with schemes to serve these cities." (Grand Forks Herald, September 1984)

I would conclude, Mr. Chairman, by taking exception to the impression presented to you that I somehow blocked the state's M&I program. I did not. I acted in good faith based on a review of the proposal. Two and a half pages of an unspecified plan did not justify overturning the Commission proposal with all of its scrutiny and review. It didn't make sense and I refused to do it.

I would add that it was a personal honor to have served on this Commission and I strongly believe that Garrison has been pointed in a new and more positive direction. Those with whom I served are among the finest people with whom I have ever had the pleasure to be associated. We all came to this difficult assignment committed to finding resolution to this long and difficult controversy.

I am personally convinced that North Dakota now gets a superior program serving almost two out of three of its citizens. The new plan is ambitious and progressive and can be a stabilizing force in that rural state. The statewide M&I plan is surely the envy of other states as none can boast of such a plan and the means of having it implemented. Few can do as much for as many of its citizens.

Congress needs to now provide specific direction to the Bureau and permit the program to move forward.

I am enclosing a copy of Mr. Christianson's testimony and a ND Health Department letter to Mr. Sagsveen identifying the cities with water quality problems as determined by them. These should be included in your hearings record.

Thank you for the opportunity to present this information to you and I hope that it contributes to a better understanding of what the Commission did on M&I and specifically on my decision not to support the state plan presented after we adjourned.

Sincerely,

James G. Teer

James G. Teer
Member, Garrison Diversion Unit Commission

James G. Teer
Sinton, TX 78387

Statement of

Gene A. Christianson, Executive Officer
North Dakota State Department of Health

before the

Garrison Diversion Unit Commission

September 10, 1984
Bismarck, North Dakota

Mr. Chairman and members of the Commission, my name is Gene A. Christianson. I am Executive Officer of the North Dakota State Department of Health. Our department is the agency in North Dakota which has the environmental responsibilities for protection and control of water quality in our state. This includes statewide authority for administration and enforcement of drinking water and water pollution control programs which have been delegated to North Dakota by the U.S. Environmental Protection Agency.

Our department is interested in the total environment and in maintaining or improving the quality of life. Water quality is certainly a major element in that interest. This five-minute presentation can scarcely do justice to the topic of public health and the environmental aspects of water quality which is of major interest to this state and to our neighboring states and Canadian provinces. We will outline today for consideration of the Commission, our views and follow-up with a more detailed analysis later.

Under the state and federal laws, the department of health is charged with assuring that water is protected for public health and welfare purposes. This includes the present and future use of such waters for public water supplies; propagation of fish, aquatic life and wildlife; recreational purposes; agricultural; industrial and other legitimate uses. The Garrison Diversion Unit project, in the same manner as other activities affecting water quality, will be required to operate so as to achieve and maintain water quality standards.

Our department has been active in pollution abatement investigations since the late 1930's. Historically, the present standards for drinking water and water pollution control have developed from guidelines in the early days to rigid standards which have become more stringent with the passage of time. We take these responsibilities seriously and our philosophy of approaching environmental quality can be described as "Good, Better, Best--never let it rest until the Good is Better and the Better Best." We work hard in North Dakota to protect our water quality and we get good cooperation and compliance from the regulated community. Recently, the U.S. Environmental Protection Agency said we had accomplished the impossible--100% compliance among both the major municipal and non-municipal National Pollutant Discharge Elimination System (NPDES) permittees (Attachment A).

Much of the focus of the Garrison Diversion Unit through the many years of study and discussion has been devoted to irrigation benefits and its potential impacts. Although these questions are important, irrigation issues have overshadowed other benefits of Missouri River water delivery and utilization in the state. Some of these other benefits were described, briefly, in the January 1957 Report on the Garrison Diversion Unit (Attachment B) and subsequent reports, for example the Appraisal Report on Municipal and Industrial Water, September 1972 (Summary -- Attachment C).

The diversion of Missouri River water to other areas of the state will have a beneficial impact on drinking water quality and stream water quality in the state of North Dakota. The Missouri River contains the best quality of water that the state has. A comparison of the five-year average of chemical parameters measured in Lake Sakakawea to U.S. EPA and state mandatory and recommended limits is shown in Attachment D. It currently provides municipal water to several of the state's larger communities and provides fishing for residents of Minnesota, North and South Dakota, Montana and Canada for walleyes, trout, salmon and northern pike to name just a few of the popular game species. The benefits from diverting Missouri River water to other portions of the state become apparent when existing conditions are examined.

As part of our drinking water program, the department has developed a comprehensive data base on the chemical quality of all public water supplies. The department has compared the chemical quality of all municipal water supplies in the state to the state and federal drinking water standards. The comparison indicated that, statewide, 82% of the city and rural or regional water supply systems serving about 155,000 people, currently are at or exceed these primary and secondary standards. Approximately one-half of these systems are outside of the Garrison Conservancy District.

Primary drinking water standards are those that are enforceable standards with specific maximum contaminant levels. The secondary standards represent reasonable goals for drinking water quality. The standards are defined as follows:

PRIMARY STANDARDS

Parameter	Conc. mg/l*
Arsenic	0.05
Barium	1
Cadmium	0.010
Chromium	0.05
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05
Fluoride	2.4

SECONDARY STANDARDS

Parameter	Conc. mg/l*
Chloride	250
Copper	1
Iron	0.3
Manganese	0.05
Sulfate	250
Total Dissolved Solids	500
Zinc	5

* milligrams per liter

At the present time no water system exceeds the standards set forth for cadmium, chromium, lead, mercury, silver, and zinc.

The following number of communities in the Garrison Conservancy District currently are at or exceed the primary standards:

Parameter	Number of Communities	Primary Standard mg/l	Maximum Value mg/l
Fluoride	3	2.4	5.1
Selenium	4	0.01	0.01
Arsenic	4	0.05	0.09
Nitrate	1	10.0	10.0
Barium	1	1	1

The following number of communities are at or exceed the secondary drinking water standards:

Parameter	Number of Communities	Secondary Standard mg/l	Maximum Value mg/l
Total. Dis. Solids	100	500	3,300
Manganese	82	0.05	1.72
Sulfate	56	250	1,310
Iron	41	0.3	3.9
Chloride	18	250	1,190
Copper	2	1	1.5

The above data demonstrates the poor quality of water which many communities in North Dakota must use as a public water supply. In nearly all cases, each of these community systems is using the best water supply that is economically available to them. The supplying of Missouri River water to these systems would provide a significantly better quality water to these people and afford them the opportunity to bring their systems into compliance with the primary and secondary drinking water standards. Replacing the ground water supply of the above community systems with Missouri River water is a viable option. There is also a possibility that recreation, and fish and wildlife developments could occur in conjunction with a better community water supply. In addition to better drinking water quality in some of the community systems, rural or regional water systems could extend this benefit to others now served by individual private wells.

Another beneficial aspect of the diversion of Missouri River water is the increased flows which will occur in the streams supported by the diversion. During many months of the year, the flows in the James River, Sheyenne River, Souris River, and their tributaries decrease to zero flow or a mere trickle. When these low flows occur during the winter months, the stream freezes all the way to the bottom. During the summer months, when these low flows occur, the water becomes hot and stagnant. Frozen stream beds and dried out stretches of stream cannot support aquatic biota or water-based recreation regardless of the quality of the little water that is present.

Municipalities and industries that discharge treated wastewater to streams in North Dakota have expended significant amounts of funds to retain their treated wastewaters during these low flow conditions. The department has required communities to construct three-cell waste stabilization ponds or lagoon systems that provide a minimum storage capacity of 180 days to retain all wintertime flows. Wintertime in North Dakota is generally considered to be from the middle of October to the middle of March.

In addition to the waste stabilization pond design criteria, and because of the low flow conditions in the streams during the summer season, the department has incorporated discharge flow restrictions in the North Dakota Pollutant Discharge Elimination System discharge permits, which each wastewater discharger must obtain. The rate of discharge from the waste treatment facilities is regulated dependent upon the stream flow and the quality of the treated wastewater. In many instances, discharges may not be allowed even though the secondary treatment standards have been met by the treatment facility. Because of this very limited flow in the receiving water, several major industrial facilities have been required to install no discharge wastewater treatment and recycling systems.

Adequate flows from the diversion of Missouri River waters into the other rivers of North Dakota would increase the waste assimilation capacity of these streams and reduce the cost of operating, maintaining or expanding these large wastewater retention facilities. Increased flows would also decrease the temperature of these streams, making the stream more suitable for the propagation and retention of game fish species. Recreation and boating along these streams could also be expected to increase, as these activities are currently precluded because of the shallow depths.

There is concern regarding the impacts of return flows on water quality in the receiving streams. The Department of Health has adopted specific standards of quality and monitors these waters so that these standards of quality are not violated. To ensure compliance with existing water quality standards, the department maintains a network of stream sampling stations to routinely monitor the quality of all surface waters of the state. The department currently operates 48 monitoring stations which are coordinated with the 114 monitoring stations operated by the U.S. Geological Survey. All monitoring information is entered into the national STORET computer system to provide for storage and retrieval of the water quality data.

This monitoring of surface water quality is the first step in assuring that the standards will be maintained. If a violation of the standards is noted, action is taken to correct the problem. The processes utilized by the Department of Health include:

1. Issuance of a notice of violation.

2. Administrative order requiring specific action.

3. Issuance of emergency order as appropriate.

4. Assessing civil penalties through the North Dakota courts.

In the first few years of the state's water pollution control permit program, approximately 80 formal enforcement actions were initiated. The enforcement procedures are still in place and appropriately applied. In recent years the compliance with the water pollution control laws has steadily improved with the issuance of only 25 legal enforcement actions in the last two years and to accomplishing the "impossible", 100% compliance of major sources.

In terms of the beneficial use of the waters available within North Dakota, the largest source of the best quality water is virtually untapped. Utilization of Missouri River water is a means to address water quality needs in this state. The irrigation potential of Garrison Diversion is important to the agriculture of our state and that I am sure will be addressed by others. The major focus of the Garrison Diversion Unit, to date, has been devoted to irrigation, this focus needs to be expanded to address other needs and benefits, namely, municipal, rural and industrial water systems and environmental protection.

The lack of Garrison Diversion water availability has caused the state to miss many opportunities to improve the drinking water quality of a large portion of our population and to improve stream flow and quality of our surface waters. Lack of a good source of high quality water has prevented solutions to community needs and optimal management of surface waters.

When decisions are made as to what areas will receive Missouri River water, detailed plans and benefits can be presented. Until that time, the following potential benefits are identified.

1. Improve the drinking water quality for community systems so that their drinking water meets primary and secondary standards.

2. Provide an adequate and consistent flow of high quality water in our streams and rivers for optimal water quality management.

3. Eliminate or reduce the number of community water supplies which are now dependent upon wells with highly mineralized water thereby reducing the total dissolved solids currently discharged to receiving streams.

4. Allow for innovative methods to proceed for managing the use and reuse of community waters including ground water recharge, and use of treated domestic wastewaters to apply nutrients on soil through irrigation rather than discharge of treated effluents to streams and water bodies.

The above potential water quality benefits are consistent with the existing authorization and if use of Missouri River water is further expanded it could expand the benefits to other areas of the state.

Enhancing the water quality of the state is going to be beneficial to municipalities, rural water users, to small industries, recreational interests and, we believe, to our neighbors as well.

Thank you for your attention and we intend to supply additional information in support of these comments.

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NORTH DAKOTA
STATE DEPARTMENT OF HEALTH
State Capitol
Bismarck, North Dakota 58505

M. A. K. Lommen, M.D., R.P.E.
State Health Officer

Environmental Health Section
Missouri Office Building
1200 Missouri Avenue
Bismarck, North Dakota 58501

September 6, 1984

Murray G. Sagsveen
Special Assistant
Attorney General
P.O. Box 1695
Bismarck, ND 58502

RE: Drinking Water Quality and the Garrison Diversion Unit
Revised Community Listing

Dear Mr. Sagsveen:

The Department of Health has compared the existing drinking water quality of all community water supplies to the primary and secondary drinking water quality standards set forth by the Federal and State Safe Drinking Water Act. Based on this comparison, the following municipal and rural water systems are currently utilizing water of a lesser quality than that which would be expected if water from Lake Sakakawea was available to these systems. These systems are grouped according to drainage basins.

Devils Lake Basin

Crary
Devils Lake
Edmore
Lakota
Leeds
Minnewaukan
Warwick

Souris Basin

All Seasons Rural Water Users System I
All Seasons Rural Water Users System II
North Prairie Rural Water Association
Upper Souris Rural Water Association
Berthold
Bottineau
Burlington
Drake
Glenburn
Granville
Karlsruhe
Kenmare
Lansford
Maxbass
Minot
Sawyer
Souris
Surrey
Towner
Upham
Westhope
Willow City

Sheyenne/Red Basin

Agassiz Rural Water Users Association
Barnes Rural Water Users Association
Cass Rural Water Users Association System I
Dakota Water Users Association, North Unit
Abercrombie
Anamoose
Aneta
Arthur
Binford
Christine
Cogswell
Colfax
Cooperstown
Davenport
Dazey
Deering
Elliott
Enderlin
Esmond
Fairmount
Fingal
Forman
Galesburg
Gardner
Glenfield
Grandin
Gwinner
Hankinson
Hannaford
Harwood
Havana
Hillsboro
Horace
Kathryn
Kindred
Lidgerwood
Lisbon
Litchville
Maddock
Mayville
McVille
Michigan
Milnor
Nome
Northwood
Oberon
Oriska
Page
Pekin
Riverside
Rutland
Sanborn
Selz
Sharon
Sheldon
Sheyenne
Tolna
Tower City
Walcott
West Fargo
Wimbledon
Wyndmere

Missouri Basin

Benedict
Bowdon
Cathay
Cleveland
Coleharbor
Ellendale
Fessenden
Forbes
Goodrich
Heimdal
Jud
Kensal
Kulm
LaMoure
Ludden
Marion
McClusky
Medina
Mercer
Monango
New Rockford
Oakes
Sykeston
Turtle Lake
Underwood
Verona
Woodworth

Communities Outside of Garrison Conservancy District

Burleigh Rural Water Users Association
North Valley Rural Water Users Association
Adams
Alexander
Almont
Ashley
Beach
Belfield
Beulah
Bisbee
Bowbells
Bowman
Braddock
Cando
Carson
Center
Columbus
Crosby
Dickinson
Dodge
Dunn Center
Dunseith
Elgin
Flasher
Flaxton
Fortuna
Fryburg
Gackle
Gladstone
Glen Ullin
Golden Valley
Golva
Grenora
Hague
Halliday
Hazelton
Hazen
Hebron
Hettinger
Killdeer
Langdon
Lehr
Lignite
Lincoln
Linton
Manning
Marmarth
Medora
Mott
Napoleon
Nekoma
New England
New Hradec
New Leipzig
New Salem
New Town
Osnabrock
Parshall
Plaza
Portal
Powers Lake
Ray
Reeder
Regent
Rhame
Richardton
Robinson
Rock Lake
Rolette
Rolla
Ross
Scranton
Selfridge
Sentinel Butte
Stanley
Stanton
Steele
Strasburg
St. John
Solen
South Heart
Taylor
Tioga
Tuttle
Venturia
Walhalla
Watford City
Wildrose
Wilton
Wing
Wishek
Zeeland

The number of communities at or exceeding each parameter level are as follows:

Parameter	Number
Total Dissolved Solids (TDS)	187
Manganese (Mn)	124
Sulfate (SO_4)	100
Iron (Fe)	66
Fluoride (F)	24
Chloride (Cl)	19
Selenium (Se)	12
Copper (Cu)	5
Arsenic (As)	4
Nitrate (N)	2
Barium (Ba)	1

At the present time, no water system exceeds the standards set forth for cadmium (Cd), chromium (Cr), lead (Pb), mercury (Hg), potassium (K), silver (Ag), and zinc (Zn).

The water quality for the public water systems is based on laboratory analysis performed by the Public Health Laboratory as a result of routine sampling required under the Safe Drinking Water Act.

Should you have any questions or require further information, please contact this Department.

Sincerely,

Francis J. Schwindt, P.E.
Director
Water Supply & Pollution Control

FJS:JL:lb
cc: Dave Sprynczynatyk

March 8, 1985

The Honorable George Miller
Chairman
Subcommittee on Water and Power Resources
Committee on Interior and Insular Affairs
Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

In response to questions raised at the Subcommittee hearing on Garrison on February 28, I have prepared a brief paper on the economics of the Garrison Diversion Unit, Pick-Sloan Missouri Basin Program. I served on the Garrison Diversion Unit Commission staff, established by congress in Public Law 98-360. My assignment, while serving on the Washington staff, was to examine the economic issues identified in the legislation creating the Commission as well as similar issues raised by members of the Commission and developed during the public hearings and scoping process.

The paper, "Report of the Garrison Diversion Unit Commission Economic Analysis," summarizes the economic issues associated with the proposed work plan and reviews the Commission's examination of those issues leading to its recommendations.

Most of this information was never presented to the Commission or made available to the public in Commission documents. However it is relevant to a congressional understanding of how the commission carried out the mandate set forth in Public law 98-360

I hope this document assists your subcommittee and the congress in its deliberations.

Sincerely,

Marc Messing

1105 Park Street, N.E.
Washington, D.C. 20002

REPORT ON THE GARRISON DIVERSION UNIT COMMISSION ECONOMIC ANALYSIS

Prepared by: Marc Messing
1105 Park Street N.E.
Washington D.C. 20002

The Garrison Diversion Unit Commission recommended a plan which would provide municipal and industrial water service to as many as 130 towns and cities in North Dakota and allow for the irrigation of approximately 130,000 acres of land, at a total cost of more than $1.1 billion.

As summarized by the Commission, the irrigation component of this project would provide direct benefits to approximately 400 farms at a capital cost of about $1.5 million per farm (see below for a more precise estimate), plus on-farm development costs. The direct benefits were estimated at $23,597 per farm, and the secondary benefits to surrounding communities were estimated to be 8 percent more than the direct benefits.

Not mentioned in the text of the Commission report, although available to the determined reader in a "profile sheet" in the report appendix, were additional estimates of the economic costs of the proposed plan:

Table 1: Short Summary of GDUC Irrigation Proposal

Capital cost (federal cost)	$1,650,953 (per farm)
	$5,414 (per acre)
On farm capital cost	$104,668 (per farm)
	$377 (per acre)
Annual net benefits	$65 (per acre)

Also contained in the appendix profile sheet was the information that the total capital cost of irrigation for this project would be approximately $673,589,000 (excluding fish and wildlife costs) -- while the capital cost repaid by irrigators would be $41,741,000.

Some economic issues, such as the comparative value of water in the Missouri River for irrigation or power generation, were never included in materials sent to the Commission by staff, while others, such as the subsidies provided to irrigators, were simply deleted from the Commission's final report.

For example, had the Commission examined or been aware of its staff's analysis of the comparative economic value of water for irrigtion and for power generation, they could have considered a wider variety of alternatives for the "beneficial uses" of the Missouri River in North Dakota than they did. And had the Commission report displayed the actual costs of the irrigation project which they proposed, including the irrigation subsidies and the total costs to the U.S. taxpayers, those costs would have appeared as follows:

Table 2: Expanded Summary of GDUC Irrigation Proposal

	Per Acre	Per Farm
Construction Costs (Federal cost of irrigation supply works)	$5,414	$1,650,953
Interest Free Subsidy (Potential cost to federal government of foregoing interest on construction costs)	$16,983	$4,619,442
Total Farm Development Costs (Construction costs plus interest free subsidy)	$22,535	$6,270,395
On Farm Costs (Costs to irrigators of equipment and land on-farm development for construction)	$377	$104,668
Annualized cost (Total farm development costs amortized over fifty year repayment schedule)	$451	$126,260
Annualized benefits (Estimates of net benefits based on GDUC staff analysis)	$85	$23,800
Annualized Repayment (Based on contracts pursuant to 1965 authorization)	$1	$280

These costs are based on the staff estimates shown in the final report, plus the "irrigation subsidy costs" (i.e., the federal costs of the interest-free subsidy of capital construction costs) included in the Commission's interim report. When the interest subsidies of irrigation construction are added to the capital costs of construction, the total farm development costs for irrigation increase from $1.65 million per farm by anywhere from $2 - $4.5 million per farm. Based on the staff estimates of interest subsidies, the total farm development costs would be $6.27 million per farm; assuming an average of 280 irrigated acres per farm, these costs would be $22,555 per acre; annualized over the fifty year life of the repayment period, the costs would be $451 per acre per year; the estimated benefits returned to farmers from irrigation would be $85 per year; and the repayment by irrigators of the costs would be $1 - $4 per acre per year.

GDUC Staff Organization and Economic Analysis

The GDUC enabling legislation, P.L. 98-360, makes several specific references to economic analysis:

1) It is the sense of Congress that... the Garrison Diversion Unit as presently authorized, raises significant issues of economic, environmental, and international concern;

2) The Commission is directed to examine, review, evaluate, and make recommendations with regard to the contemporary water development needs of North Dakota, taking into consideration...

(H) the institutional and tax equity issues in the State as they relate to the authorized project and alternative water development proposals;

(I) the fiscal and economic impacts of the Garrison Diversion Unit, as compared with alternative proposals for irrigation and municipal and industrial water supply.

Additionally, the 1944 report to the Congress by Secretary of Interior Harold L. Ickles on the Bureau's plan for Missouri River Basin Development (S. 191), specifically refers to the fact that the GDU as originally conceived was intended to give preference to water development functions "which make the greatest contribution to the well being of the people and to the areas of greatest need."

The need for examination of these economic issues was addressed by the Commission at its very first organizational meeting -- August 30th, 1984 -- and was specifically reviewed both in subsequent meetings of the Commission and in letters from members of the Commission to the staff.

At the August 30th meeting Commissioner Bellmon questioned the staff about the congressional mandate of PL 98-360

SENATOR BELLMON: The one I have in mind has to do with agriculture. Here we are considering bringing 250,000 acres of land under irrrigation at the very time the federal government's spending $20 billion to take land out of cultivation. Are there any statistics showing how big an impact on production these 250,000 acres will have? Has that been researched?

MR. WILEY: Yes. To answer your question, it's my interpretation -- and I'm not a lawyer -- that those 11 items are points that the Commission must address. But it has the latitude to address other things besides that...

SENATOR BELLMON: Do you need -- can one of us call you and ask you to do that? Does the Commission need to instruct you?

CHAIRMAN TREEN: I think we might need an instruction to the staff to include that in the scope of our overall study. And I'd support you on that if you wish to include that.

SENATOR BELLMON: I'd like to so move, if that's proper, that we ask the staff to furnish this information regarding the impact of this project on agricultural production.

MR. WILEY: So noted. We will do that.

CHAIRMAN TREEN: ... I think everybody's interested in that. The issues been raised publicly about that. And so, I think we need to consider it.

MR. WILEY: We will do so.

In fact this matter was never researched by the staff and it was subsequently decided as a matter of staff policy that explicit questions such as that presented by Mr. Bellmon should not be answered; but should be considered for guidance only.

The economic issues first raised by Mr. Bellmon and supported by other members of the Commission were also echoed at each of the public hearings by speakers who questioned the economic validity of the project and by citizens of North Dakota and representatives of various organizations who raised many particular questions regarding different economic aspects of the authorized irrigation plan.

Finally, Senator Andrews, in a personal presentation to the Commission, suggested five "principles" to guide the work of the Commission. The first two pertained specifically to economic issues.

1) recommendations should be adopted which provide benefits to the greatest number of North Dakotans;

2) recommendations should be adopted which are the most cost-effective.

Consistent with all of the above the Commission staff contracted with Dr. H. Paul Friesema of Northwestern University "to review and consider all institutional issues...", and with Dr. Lynn Daft of Able, Daft, and Earley, "to review all economic materials, methodologies, and analysis... regarding the fairness, objectivity, and thoroughness of all such materials." The staff also asked Dr. Herb Fullerton, Assistant Director, Office of Policy Analysis, to act in a similar capacity as Dr. Daft, to review the objectivity of all economic analysis conducted by the staff. Economists from the Department of Agriculture Economic Research Service, the Congressional Research Service, and other congressional and federal agencies were also consulted regarding methodologies and issues appropriate for the GDUC.

The staff analysis drafted as an overview of the economic issues for the Commission's consideration was reviewed for conceptual objectivity and fairness by these individuals, as well as technical validity by the chief economist on the Commission staff, prior to submission in the Commission's Interim Report.

In reviewing the Commission's economic examination of GDU it is instructive to note the manner in which these materials were internally reviewed.

The professional staff was divided into four review groups to review all materials submitted for the Interim Report. Each group was responsible for reviewing all of the materials collectively, and appointing a single representative to meet with the Technical Staff Director (Mike Clinton) and the Staff Director (Jim Wiley).* Although none of the review groups expressed the opinion that the economic materials should not be included in the Interim Report and several strongly supported their inclusion, both Mr. Clinton and Mr. Wiley objected to their inclusion. Their position, simply stated, was that the purpose of the Commission was to "reformulate" the authorized project and that any economic examination of Bureau policies was inappropriate.

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* Both Mr. Clinton and Mr. Wiley are career employees of the Bureau of Reclamation.

Accordingly, materials reviewing four specific economic issues were deleted from the published materials and were never presented to the the Commission. These were:

- the allocation for irrigation and the repayment schedule for irrigators under the 1965 authorization;

- the "benefit stream" -- or the manner in which federal funds and subsidies and the income generated from them would be distributed among the general population in North Dakota -- that would result from variants of the authorized irrigation project or alternative municipal water delivery systems;

- a cost comparison between irrigation and municipal water delivery systems;

- the subsidies of federal irrigation and the economic policies of the Bureau of Reclamation relevant to GDU and altefnative proposals for the beneficial use of Missouri River Waters.

Although the Commission eventually discussed these fundamental issues, staff research, review, and analysis was circumscribed, and potentially significant information was withheld from both the Commission and the public in this process.

The Garrison Diversion Unit Commission met officially on six occasions, in an organizational meeting on August 30th; at public hearings in North Dakota on September 10-11; in a business meeting on October 17th to consider the preliminary staff analysis; at public hearings on November 16-17; in a business meeting on November 28th to delimit the options and frame the final report; and at a final public hearing and business meeting on December 13-14.

From the standpoint of the issues considered by the Commission and analysis or documentation requested by the Commission of the staff, the business meeting of October 17th was pivotal. The first meeting of the Commission was, strictly speaking, an organizational meeting. The Commission reviewed the plan for staff organization and operations, heard briefings prepared by the Bureau of Reclamation and other agencies of the Interior Department, and approved the agenda for public hearings and further business meetings. The public hearing in Bismarck, North Dakota on September 10th and 11th provided the first opportunity to receive public testimony.

Following these first public hearings the staff conducted a series of "technical workshops" (also in Bismarck), and prepared briefing papers for the Commission. The October 17th business meeting was the Commission's opportunity to be briefed by its staff on the data it had compiled and the analysis it had conducted to assist the Commission in its work. Following this meeting an Interim Report was released to the public for comment at the second scheduled public hearing, and following the second public hearing the Commission prepared its preliminary final report for comment at the third and final public hearing immediately prior to a final Commission decision.

In preparation for the October 17th meeting it was decided that a "technical workshop" would be conducted (originally scheduled on less than a week's notice) on the subject of farm budgets -- i.e., the comparative costs of dry-land and irrigated farming, including crop mixes, rotations, soil types, and price estimates -- and that no other economic issues would be examined by the staff or presented to the Commission at this meeting. In other words, it was decided by the staff's management (which came from the Bureau of Reclamation) that the economic issues presented to the Commission should be consistent with the existing policies of the Bureau of Reclamation, and therefore should focus solely on the calculation of benefit-cost ratios.

This decision did not reflect the broad mandate of the enabling legislation to examine, review, and evaluate the economic issues raised by the authorized Garrison Diversion Unit; it did not reflect the public testimony which argued on behalf of a full examination of the full costs of all alternatives; and it did not reflect the questions posed to the staff by many members of the Commission. But it did limit the staff analysis presented to the Commission and released to the public.

Such other issues as the comparative economic value of water for industry, commercial development, power generation, agriculture or municipal use; the estimated "debt" owed to the state of North Dakota as a result of lost revenues and lost opportunities; and the theory that irrigation of a small percentage of the state's farmland would stimulate secondary economic development in the state were not addressed.

Instead, a one page summary of the staff conclusions on farm budgets was presented to the Commission along with several tables of hypothetical crop mixes, yields, and revenues. Nor was the oral presentation accompanying these materials any more extensive. The record indicates that it fills approximately five pages of a 340 page transcript, including questions asked by members of the Commission.

It is unfortunate that this important set of issues was never fully examined by the Commission.

Two of the five questions asked by members of the commission are reprinted here, both for their substantive value and to indicate the curious manner in which a full discussion of the issues seems to have been curtailed.

MR. BELLMON: What is it going to cost to bring the water there to keep that land value up? [Note: the previous discussion indicated that irrigation actually might decrease some farm land values.]

DR. KLEINMAN: Well, we don't have current cost estimates other than the Bureau's.

MR. BELLMON: What are they?

DR. KLEINMAN: The Bureau of Reclamation estimates it in the order of $4,000 an acre.

MR. BELLMON: So you spend $4,000 to save $300?

DR. KLEINMAN: That is correct.

CHAIRMAN TREEN: Other questions?...

* * *

DR. MILLIKEN: But, I seem to remember a figure and it is rather small as to what the potential irrigable acreage would be of the state. The map shows a fairly small amount, but even with the Garrison project as originally conceived. It was a tiny percentage, was it not?

DR. KLEINMAN: There is a very large number of acres, seven, eight, ten million acres. [Note, these figures refer to the total irrigable land in North Dakota.] We are talking about a quarter of a million acres (of irrigated land for GDU).

DR. MILLIKEN: But, it is not as bleak as --

CHAIRMAN TREEN: Any other questions?

The first question which strikes the reader, of course, is why this line of questioning was interrupted by the Chair. The issue which Dr. Milliken appears to have been pursuing is this: could the benefits of the Garrison Diversion Unit -- under any of the irrigation plans considered by the Commission -- make a significant contribution to the state's economy, especially if the long-term outlook for agricultural development is as bleak as it appeared in Dr. Kleinman's statement?

The answer is no.

The North Dakota Farm Economy

The economy of North Dakota is largely dependent on agriculture, and its agriculture is almost entirely dependent on relatively large dry-land family farms specializing in field crops, cattle, and dairy production. In 1983 the averge farm size in North Dakota was 1,112 acres (up from 921 acres in 1970), and was about twice the national average.

In 1982 the state of North Dakota had over 40 million acres in agricultural production out of a total land area of 44.3 million acres, with 36,431 active farms and an average farm size of 1,104 acres (about twice the average farm size in the nation). Approximately 90 percent of these farms were still owned and operated as family farms in 1982, and although the total number of farms in the state was down 9.7 percent since 1978, the reasons for this decline may be as much the consequence of changing demographics as farm economics. As in other parts of the country farm indebtedness has risen over the past decade and those farmers who are highly leveraged have been pressured by depressed farm prices and high interest rates. Even where second and third generation family members have retained title to family farms the farms have often been refinanced and the debt equity profiles are similar to those in other parts of the nation. This "farm squeeze" has also been exacerbated in North Dakota because of its dependence on wheat, which hrs been in oversupply for several years.

The decline in the number of operating farms does not appear, however, to be related to the need for irrigated farming in the state. In 1981 North Dakota farms realized a record high productivity of more than $82,000 per farm (gross), up 11 percent over 1980, and in 1982 North Dakota ranked twelfth in the nation in farm value. It was also first in the nation in the production of duram and other spring wheats; it was first in barley, second in rye, first in flax, third in oats, and first in sunflowers, while the average debt/equity ratio for farms in the state remained slightly lower than for most of the 17 western states. In fact, the sharpest decline in farm numbers was among the small number of farms in which all harvested cropland was irrigated (17%). The smallest decline (5%) was among those farms with some of irrigated croplands.

Other factors -- beside the 12 to 15 inches of average rainfall -- which affect the overall strength (and the natural limits) of the North Dakota farm economy are the relatively short growing season and the short days of the North Dakota climate.

In general, most of the wheat is grown in the northern half of the State, most of the state's cattle are raised in the southern half, and sunflowers are grown predominantly throughout the central and east central parts.

The following table indicates the short term trends -- between 1978 and 1982 -- in irrigated farming in North Dakota.

Table 3: Irrigated and non-Irrigated Farming in North Dakota

	1978	1982
All harvested cropland irrigated		
number of farms	184	152
number of acres	97,906	78,902
Some land irrigated		
number of farms	792	762
number of acres	1,342,296	1,416,102
No land irrigated		
number of farms	39,565	35,669
number of acres	40,360,074	38,789,903
Totals (all farms)		
number of farms	40,357	36,431
number of acres	41,702,370	40,206,005

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These figures suggest that the ability to irrigate portions of farms which are otherwise dry-land farmed does have a stabilizing effect; but the figures don't suggest that North Dakota farms are unstable, uneconomic, or that irrigating 250,000 -- or even a million acres -- would yield any larger economic benefits to the state in the form of a stablized farm economy or a stimulated growth in secondary industries. Even if one half million acres were irrigated, and the irrigation were distributed equally among all recipients (assuming one center pivot sprinkler per farm), the irrigation would cover only 1 percent of the farmland in North Dakota. It is hard to imagine that this could be sufficient to significantly stabilize the farm economy of North Dakota under any circumstances. Unfortunately, this was an issue which was never examined by the Commission or its staff.

Another issue which was discussed briefly by the Commission but never pursued in either staff analysis or informed Commission discussion involved the levels of federal farm support programs in North Dakota and the possible relation to Garrison Diversion irrigation. The GDUC staff did determine that provisions of the 1965 Act explicitly prohibited farm support payments to GDU beneficiaries for a period of ten years, but it did not pursue current payment levels. Those figures, as reported by Dr. Daft, are shown below.

Table 4: North Dakota Farm Support Payments (Cash receipts in $1,000)

	1980	1981	1982	1983
Conservation	4,312	3,563	2,491	4,390
Feed Grain	19,200	14,539	22,055	32,542
Wheat	74,582	67,796	105,480	141,669
Miscellaneous	18,540	44,761	70,150	63,932
TOTAL	$116,634	$130,659	$200,176	$242,533

County Equity

A corollary issue, which was examined in preliminary detail by the staff but which was never presented to the Commission or pursued more fully -- apparently either as the result of a staff management decision or a directive from the Chairman -- regards the equity of economic impacts and benefits which would have resulted under the authorized plan and the alternatives considered by the Commission.

Of the 53 counties in North Dakota (all of which, apparently, are on record in support of GDU development), or the 25 counties in the Garrison Diversion Conservancy District, less than a dozen might benefit from the irrigation from either the 1965 authorized plan or the revised Commission plan. Moreover, those few counties which stand to benefit directly were not those adversely affected by the construction of Garrison and Oahe Dams, nor are they among the most needy of irrigation in the state. To the contrary, the benefits of GDU, under both the 1965 authorized plan and the Commission plan, would be those areas of the state that are currently the most prosperous, with the highest farmland values, the highest farm productivity, and the highest farm incomes in the state.

Drought Probabilities

Another element of this economic issue, i.e., the real long-term benefits of irrigation to the state's agricultural economy, regards the probability of drought conditions against which irrigation would provide protection. At the November 17th meeting of the Commission, Commissioner Paulson, of North Dakota, addressed his concern that one of the proposals before the Commission would only provide 75% of the intended irrigation waters during dry years such as 1976. His concern, he emphasized, was not with drought conditions such as 1976, but with drought conditions such as those which occurred in the 1930's.

The staff did not investigate the matter of drought probabilities thoroughly, but a cursory examination did indicate an estimation by the Western Area Power Administration of drought probabilities in the upper Missouri River. They concluded that the probability of a drought comparable to the 1930's was approximately 1:3,300. In other words, such a drought might occur once again within the next 3,000 years or so.

To put this in the perspective of GDU irrigation, it should be remembered that the irrigation of 250,000 acres of land would have served only 1.2 percent of the harvested cropland in the state, and less than 1 percent of the total farmland. A 25 percent reduction in irrigation during unusually dry years (such as 1976) would affect less than one-half of one percent of the cropland and less than one-quarter of one percent of the total farmland in the state. Once in every 3,300 years a substantially more serious drought could be expected to occur.

Economic Benefits of GDU Irrigation

As has been the case in every manifestation of the Garrison Diversion Unit proposed since 1944, and as is the case in the proposed "Commission Plan", the direct economic benefits of irrigation would flow to an extremely small number of people in the state. In the case of the "Commission Plan", this would be no more than 935 farmers (assuming one center pivot irrigating approximately 180 acres on each farm), the Commission estimated that the most likely number of direct beneficiaries would be around 408 farmers (assuming two center pivot units per farm). Curiously, however, in the four months of its existence, and in the course of three well-publicized hearings, the Commission never received evidence of more than a handful of farmers actually interested in irrigating their lands. Among all of the officials of the state, the Chamber of Commerce officials, and other representatives of the public interest who testified on behalf of the GDU irrigation plan in person or in writing, very few farmers expressed their personal interest to the commission in receiving GDU irrigation waters.

Let us cite some details on this point.

When the Commission staff requested information from the Garrison Diversion Conservancy District regarding "the number of parties who have expressed interest in receiving irrigation waters from, the GDU", Mr. Murray Sagaveen, representing the Conservancy District, responded that the request was "confusing", and he did not provide any numbers.

Mr. Mike Dwyer of the North Dakota Water Users Association compliled a list of sixty-nine people to address the Commission in support of the authorized project at the first public hearing: of these, only six were identified as farmers.

A 1984 survey by the North Dakota Cooperative Extension Service of farmers within the Dickey-Sargent, New Rockford, and James River Irrigation Districts found that although several of the landowners "were not enthused about irrigating...they would not object to development if that would preclude irrigation for those who were interested...Of the 40 landowners contacted [in one area], none indicated that they were not interested... Of the 39 landowners contacted [in another area], all were interested in having the detailed survey conducted. Several indicated they were not interested in irrigating..." In all, about a hundred farmers appear not to have expressed disinterest or opposition to the project, while about ten indicated explicit disinterest or opposition.

In fairness, there was a widespread expression that farmers in the area would not commit to irrigating their land in advance, but would be likely to follow suit once other farmers in the area took the lead. There was also a widespread feeling, however, that many of the "interested" farmers (particularly in the Oakes area) were more interested in the drainage that would be provided along with the irrigation than in the irrigation itself. No attempt was made by the Commission or its staff to examine these matters in depth or verify these facts.

Finally, two other items are worth noting in this regard.

First, the question was raised, both in public hearings and in staff analysis, as to whether farmers interested in irrigating under current economic conditions would be able to secure private financing for the cost of center pivot development. In an analysis prepared for the Commission in October, 1984, Dr. Lynn Daft wrote: "There does not appear to be any shortage of capital for use in financing agricultural investments. Most rural banks in the Midwest and Plains indicate sufficient funds. However, farm creditors are becoming significantly more cautious in approving loans to farmers... even for those borrowers considered to be highly solvent and creditworthy, lenders are playing an active role in choosing among those types of investments they are willing to finance. And, for a variety of reasons, irrigation equipment appears to rank low in lender priority." Given the benefit-cost ratios produced by the commission's investigation and current farm economics, it is no surprise that irrigation equipment ranks low.

Second, federal reclamation law was altered by congress in 1982 to raise the entitlement for subsidized irrigation from 160 acres per person to 960, with a realization that historically the 160 acre limit has served as much as a floor as well as a ceiling for irrigation development. Consequently, it is possible, if the 960 acre limit is applied to the revised GDU plan, that as few as 135 individuals might ultimately benefit directly from GDU irrigation -- or even fewer if farmers are unwilling or unable to commit to the on-farm capital cost of the necessary center-pivot sprinkler systems and associated costs.

The Repayment Plan

Under reclamation law, farmers are required to repay a percentage of the capital costs of irrigation over a fifty year period based on a calculated "ability to pay" formula. As we have noted above, and as Dr. Kleinman began to explain to Dr. Milliken in the transcript quoted above, the ability to repay the capital costs of irrigation allows for returns to the farmer for investment costs, management fees, family farm labor, and other production costs, so that it is entirely possible to sustain a farm indefinitely, and perhaps comfortably, at this breakeven point without ever showing a "profit".

Pursuant to the Garrison Diversion Unit as authorized in 1965, a repayment contract was executed which fixed the repayment obligations for irrigators at $19 billion, thus establishing the effective repayment rate of $1.20 per acre. Although the estimated cost of constructing GDU has since risen from approximately $200 million to more than $1.2 billion, the $19 million repayment obligation remains unaffected, as it will for the next fifty years under the present contract.

In the Commission plan, however, the capital cost recovery attributed to irrigators is $41,741,000, or almost four times as great as the $1.20 acre repayment authorized for Garrison, while estimated operating and maintenance costs -- which also must be repaid by irrigators -- have risen to more than $40 per acre.

Benefit-Cost Ratios

In contrast to other economic issues which received little attention from the Commission, the subject of benefit-cost ratios received considerable attention. B/C ratios were prepared for each of the twenty-five alternatives in the Interim Report, and were calculated under discount rates of both 3.125% (the authorized rate in 1965, and stipulated by PL 98-360 to be applied to the Commission's recommendations) and 8.125% (the current discount rate in late 1984). Agricultural benefits were computed on the basis of "blended" irrigated farms, assuming average farms of 1,000 acres with 250 -300 acres of irrigated land (equivalent to the use of two center pivot sprinkler units). Increased agricultural benefits of $40.03 per acre were used for farms in the northern part of the state, and benefits of $72.06 per acre were used for farms in the south. Municipal and industrial benefits were assumed to be equal to the costs of delivery (including capital costs plus interest at the assumed discount rate).

At the current discount rate of 8.125 percent, these benefit-cost ratios were calculated to range from 0.15 to 0.46 for the principal irrigation alternatives reviewed. At 3.125 percent, they ranged from 0.29 to 0.77.

TABLE OF B/C RATIOS AT 3.125 and 8.125 PERCENT DISCOUNT RATES

	3.125	8.125
1965 authorized plan (250,000 acres)	0.77	0.29
1965 authorized plan (250,000 acres, as modified in 1984)	0.52	0.23
1965 Phase One Development (85,460 acres)	0.73	0.44
1984 North Dakota Plan (165,000 acres)	0.59	0.33

The fact that none of these approached the positive benefit-cost ratios projected by the Bureau of Reclamation or the state of North Dakota provoked a vigorous debate which extended throughout the Commission's tenure. Consequently the Commission asked that a comparative analysis of the various benefit-cost ratios prepared by the staff, the state of North Dakota (North Dakota State University), and the Bureau of Reclamation be compiled. That comparison was prepared with a one page commentary and is summarized below:

COMPARISON OF ESTIMATED PROJECT ALTERNATIVE B/C RATIOS

		Project Alternatives		
NDSU/DL*	3.125	.67	.73	.84
	8.125	.32	.45	.59
NDSU/HO**	3.125	1.14	1.18	1.21
	8.125	.64	.78	.69
USBR***	3.125	1.50	1.24	1.27
	8.125	.69	.72	.82
GDUC	3.125	.76	.75	.92
	8.125	.36	.46	.64

* Based on farm budgets prepared by D. Lundstrom

** Based on farm budgets prepared by H. Olsen

*** Based on farm budgets prepared by the Bureau of Reclamation (composite net productivity $246.46/acre)

The wide range of estimates in this comparison is evident, but the underlying reasons for this range are not. The reasons include, of course, the fact that any long-range quantitative forecasting tools such as B/C calculations are necessarily inexact and highly sensitive to the assumptions and the methodologies on which they are based.

For example, the Bureau of Reclamation methodology calculates the net benefits from irrigation as the difference between projected revenues for irrigated lands and the revenues (or deficits!) for unirrigated lands. In the case of the GDU analysis, this resulted in a net benefit of $240 per acre based on projected revenues of $140 per acre for irrigated lands and deficits of $100 per acre for unirrigated lands. The GDUC staff assumed, on the other hand, that farmers would not farm lands which could not be farmed profitably, and that the net benefits in the case above would be $140, rather than $240 per acre. The GDUC staff also concluded, for other reasons, that the estimate of $140 per acre in net revenues was too high.

A similar issue arose with regard to the crop mixes assumed under the different calculations. The crop mix assumed in the staff analysis was based on many sources, including the technical workshop conducted in Bismarck, and included approximately 1 percent potato production. The state of North Dakota, however, challenged this assumption and argued that farmers in North Dakota would grow a much higher percentage of irrigated potatoes. Mr. Howard Olsen, of the Carrington Research Station, established by the Conservancy District in the Oakes area, testified before the Commission that irrigated potatoes could yield 350 cwt/acre and that by increasing the percentage of potatoes planted to 25 percent of the total crop, the net revenues would increase from less than $72 per acre to more than $220 per acre.

Staff analysis of this issue indicated four problems:

- because potato production requires four year rotations, 25 percent production would require full participation of all farmers maximizing potato production;

- if irrigated potatoes yielded only 300 cwt/acre and were on one-quarter of the 250,000 acre project, this would still produce more than 18 million cwt annually -- or about 6 percent of total U.S. production. This in turn would be likely to depress the price of potatoes nationwide by at least 24 percent;

- under these assumptions, the federal cost of subsidized potato production in GDU would be approximately $2.07 per cwt, in comparison with a nationwide price of $5.97 per cwt in 1983;

- the net result would be a positive economic impact in North Dakota of about $81 million per year, and a negative impact nationwide of $457 million.

It should also be noted that North Dakota potato production declined about 14 percent between 1978 and 1982 (which are the reference years used in the most recent data available through the Census of Agriculture), but the number of farms growing irrigated potatoes declined at more than twice that rate, and the actual number of acres planted in irrigated potatoes in North Dakota declined from 2,196 to 261. (The number of acres of dry-land potatoes in North Dakota declined from 23 million to 17 million).

The final Commission report reflects a revised B/C ratio based on a 3 percent mix of potatoes rather than the 1 percent used originally; but this decision appears to have been made by staff fiat, and it is unclear that any of the analysis outlined above was ever considered by the Commission.

Economic Benefit Streams

The debate over benefit-cost ratios touches upon another issue which was never publicly examined by the Commission, namely the concentration of benefits that would have resulted from any of the irrigation schemes considered by the Commission.

This benefit stream consists of two basic components.

First, irrigators participating in reclamation projects such as the proposed GDU benefit significantly from the subsidies built into federal reclamation law. The statutory basis for large scale federal water development projects finds its modern basis in the 1902 Reclamation Act which established the principle of direct project beneficiaries repaying the construction costs of federal irrigation projects. From the outset, however, irrigators found the repayment schedules onerous and the Act was amended to allow 20 years for repayment (rather than 10) with deferred early payments. When this also proved too burdensome, the Act was amended again to allow 40 years for repayment and to redefine the financial obligations of irrigators in terms of their "ability to pay". As a result, irrigators today are responsible for repaying a portion of the capital investment based on their profit margins after allowances have been made for production costs, management fees, investment costs, and the value of family labor. The remainder of the capital cost is repaid by revenues of power generation, and interest on the debt is forgiven entirely.

In the case of the authorized Garrison project, the allocated cost of irrigation was estimated at $1024 million and the amount to be repaid by irrigators was $19.26 million -- or less than 2 percent of the construction cost. While the remainder of the construction costs would be repaid from power revenues, thereby constituting an irrigation subsidy by power consumers, the interest foregone by the federal treasury on the capital costs could range anywhere from $1 - 3 billion at today's long term market rates. This, of course, constitutes a direct subsidy to the beneficiaries by the federal government.

Thus, if we assume 400 direct beneficiaries of the project, with a capital cost subsidy of $1 billion dollars and an interest subsidy of anywhere from $1 - 3 billion, there is a subsidized benefit in excess of $5 million per farm, or at least $18,000 per acre of irrigated land.

Additionally, of course, the beneficiaries would then be expected to reap some benefits from the increased productivity of irrigated lands. If we assume the base case in the Commission plan of 278 irrigated acres per farm, and the staff estimates of $84.99 per acre in increased net revenues, each participating farmer would expect additional profits of $23,627 per year. If we assume Mr. Olsen's estimate of $226.22 per acre, then each farm would see an additional $62,889 in profits each year. And if we assume that some farms would be able to utilize the full 960 acres allowed by federal law, and might realize the increased revenues of $240.56 estimated by the Bureau of Reclamation, their net increased profits would be approximately $230,900 per year. For comparison, the average farm net income in North Dakota was about $13,000 in 1982, up from $7,190 in 1980.

Indian Economic Issues

In the course of staff inquiry and the Commission's deliberations it became evident that the Indian tribes suffered disproportionately greater losses to their communities, their cultures, and their economic and social well-being than the state of North Dakota did from the inundations of the Pick-Sloan plan.

In effect, as contemplated in the Pick-Sloan plan of 1944, and as carrried forth with the construction of the Garrison and Oahe Dams, Indian lands were taken through the power of eminent domain for the economic benefit of North Dakota. The economic argument that the state of North Dakota, rather than the Indian nations, sacrificed its lands for the benefit of downstream flood control is tenuous at best; and despite the settlements imposed on the Indian tribes at the time of the land-takings, it is easier to construct a persuasive argument that a greater debt remains to the Indian tribes than to the state of North Dakota. (The document submitted to the commission, Just Compensation for Lands Taken from the Three Affiliated Tribes of the Fort Berthold Reservation for the Garrison Dam, prepared by Ron Cummings, November 1984, is an excellent representation of these claims.)

For this reason, and because the Commission recognized that the fundamental issues surrounding the impacts suffered by the people of these tribes deserve more attention than it was able to devote to the issues, it recommended a second commission be convened specifically for the purpose of reconsidering these issues.

DEVILS LAKE SIOUX TRIBE
FORT TOTTEN, NORTH DAKOTA 58335
PHONE: 701 - 766-4221

February 28, 1985

Honorable George Miller
House Interior Subcommittee on
Water and Power Resources
1522 Longworth
Washington, D.C. 20515

Re: Testimony of the Devils Lake Sioux Tribe regarding the recommendations of the Garrison Diversion Unit Commission.

Dear Mr. Miller:

The Devils Lake Sioux Tribe wishes to comment on those Commission recommendations which pertain to the Tribe.

The Devils Lake Sioux Reservation is located in north central North Dakota. The Reservation is within the Devils Lake Drainage System. This system, in turn, is within the Hudson Bay Drainage System. Because we lie within the Hudson Bay Drainage System and the accompanying Canadian concerns, we were largely excluded from the Commission recommendations. However, the Commission did make some recommendations concerning water supply needs, an outlet for the lake and the establishment of a 5 member Indian Commission. We would like to address these points.

I. THE WATER SUPPLY NEEDS OF THE DEVILS LAKE SIOUX RESERVATION:

The Reservation has two needs in this area: (1) a comprehensive study of the ground water; and (2) the development of adequate and safe municipal water systems for the four communities.

There has never been a comprehensive study of the water supply on the Reservation. The Reservation has several wells utilized for community and irrigation purposes. The quality and life span of the individual wells has never been determined. If the Reservation is to grow and develop, the water needs of the community must be determined.

The Commission recommended the appropriation of funds from the Garrison Diversion Unit FY 85 appropriations to study municipal water needs of the Reservation and to develop the necessary systems. We would request these recommendations be implemented.

II. AN OUTLET FOR DEVILS LAKE:

As the testimony revealed during the Commission hearings, Devils Lake is a closed lake. The natural drainage is to Stump Lake during times of high flow.

The testimony also revealed Devils Lake draws a substantial amount of tourism and fishing dollars each season. These dollars are very important to the surrounding communities and the State. An outlet for the lake is necessary to encourage this growth and development.

The Commission recommended studies be continued concerning an outlet. Canada, in the testimony, stated it has no objection to an outlet for stabilization purposes.

Stabilization of the lake is necessary as well as cleansing. Both are needed to maintain the quality of the lake for wildlife, tourism, fishing and recreation.

We would request the necessary studies be completed and negotiations with Canada be started so a solution can be found for the betterment of Devils Lake.

III. THE FIVE-MEMBER INDIAN COMMISSION:

The Commission recommended a five-member Indian commission be established to study the needs of the Indian Tribes and to make the necessary recommendations to the Secretary of the Interior.

Our recommendation would be to require the Indian Commission to not only study those factors set forth by the Garrison Diversion Unit Commission for Fort Berthold and Standing Rock but to also study the same factors for the Devils Lake Sioux Reservation.

Although we don't have the indemnification issues raised by the other two reservations, we do have many of the same needs. Any and all studies and recommendations undertaken by the Indian Commission should include Devils Lake Sioux also. These studies and recommendations can only serve to enhance the Reservation for the benefit of our tribal members.

We would like to thank the Subcommittee for allowing us the opportunity to express our views concerning the Garrison Commission recommendations. If we can provide additional material to assist you in any manner please let us know.

Sincerely,

Elmer White Sr.

Elmer White, Sr.
Tribal Chairman of the
Devils Lake Sioux Tribe

Charles W. Murphy
Chairman
Standing Rock Sioux Tribe
Fort Yates, North Dakota 58538

March 1, 1985

Honorable George Miller
Chairman
Sub-Committee on Water and Power
Committee on Interior and Insular Affairs
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Miller:

On February 28, 1985, your Committee held hearings on H.R. 1116, relative to the Garrison Diversion Commission recommendations. I would like to transmit my appreciation to you for having the Chairman of the Health, Education and Welfare Committee of our Tribal Council, Mr. Allen White Lightning, testify. As he has stated to you, we are not opposed to the passage of H.R. 1116; however, we would be if the South Dakota-portion of the Standing Rock Sioux Indian Reservation is not included in this legislation. I understand that there had been some miscommunication between the Department of Interior's Legislative Counsel and the Bureau of Indian Affairs. Assistant Secretary of Interior, Mr. John W. Fritz, had transmitted the appropriate corrections but by that time, Congressman Byron Dorgan introduced this legislation and hearings had been scheduled.

In addition, the Garrison Diversion Commission had recommended a 5-member Commission to review areas of concern that affects the Standing Rock Sioux and the Three-Affiliated Tribes; as of yet, we have not seen the establishment of this 5-member Commission. Maybe with your assistance, we can expedite this.

Again, thank you for your consideration of our testimony.

Sincerely,

for Charles W. Murphy
Chairman

Office Phone 854-7231

STEVEN LIAN<SIERRA CLUB
PO BOX 1624
RAPID CITY SD 57709-1624

Western Union Mailgram

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▶ REP. GEORGE MILLER
CAPITOL ONE DC 20515

THE DACOTAH CHAPTER SIERRA CLUB, REPRESENTING NORTH AND SOUTH DAKOTA, URGES THE COMMITTEE TO CONSIDER AN AMENDMENT PROPOSED BY THE GARRISON TASK FORCE, WHICH WILL LIMIT THE ENVIRONMENTAL DAMAGE TO THE JAMES RIVER, WHICH WAS INCREASED UNDER THE GARRISON COMMISSION'S PLAN. WE REQUEST THAT THE GARRISON DIVERSION LEGISLATION DELETE ALL IRRIGATION ALONG THE JAMES RIVER SYSTEM, DELETE THE SYKESTON CANAL AND BUILD A PIPELINE FROM THE MCCLUSKY CANAL TO THE CHEYENNE RIVER TO CARRY TREATED WATER TO THE RED RIVER VALLEY AND A PIPELINE TO PIPESTEM CREEK TO FURNISH ADDITIONAL WATERS TO THE JAMES RIVER FOR MUNICIPAL AND RURAL WATER USAGE IN EASTERN DAKOTAS.

THE PRESENT RECOMMENDATIONS FOR IRRIGATION INVOLVE SUBSIDIES FROM $1.6 MILLION PER FARM, WHICH WILL INCREASE OUR CAPACITY TO GROW SURPLUS CROPS. LET US SPEND MONEY ON A PROJECT THAT WILL PRESERVE WHAT WE NOW HAVE AND IMPROVE OUR RURAL AND MUNICIPAL WATER SUPPLIES.

RESPECTFULLY YOURS,
STEVEN LIAN, DACOTAH CHAPTER CHAIR
909 16TH ST N.W.
MINOT ND 58701

09:30 EST

MGMCOMP

16610 Parthenia ST
Sepulveda Cal.
91343

Honorable George Miller Chairman
Sub-committee on Water & Power Resources
1522 Longworth Wash D.C.

Dear Mr Chairman

I am writing to request that irrigation be deauthorized, and all irrigation supply features be left out of the N.D. Garrison Dam Project, irrigation in east central N.D. along the James River does not pay.

I would also like to see funding frozen so no construction will continue, and no more contracts for additional construction be allowed, until an acceptable Garrison plan be made, I have an interest in N.D. farm land at the present time and would also request this letter be part of the hearing record for bill H R 1116.

thank you

Edward Bakula
16610 Parthenia St
Sepulveda Cal.
91343

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HONORABLE GEORGE MILLER, CHAIRMAN
SUBCOMMITTEE ON WATER + POWER RESOURCES
1522 LONGWORTH
WASHINGTON DC. 20515

Please include my letter in the Garrison Diversion hearing record.

I would ask that you delete all open ditch Canals and irrigation delivery systems from the Garrison Project. Replace it with buried pipe for M+I and rural domestic delivery systems.

We don't need help in raising more crops, we need help in selling our crops!

A NORTH DAKOTA FARMER
FROM WELLS COUNTY,

Ordean Ebel

Fessenden N.D.

elephant brand fertilizer

BEST COPY AVAILABLE

Lakota Audubon Society
P.O. Box D • Brookings, South Dakota 57007

Feb. 28, 1985

The Honorable George Miller
Chairman, Sub-committee on Water and Power Resources
Room 1522, Longworth HOB
Washington, DC 20515

Dear Representative Miller:

The Lakota Audubon Society of Brookings, South Dakota, is opposed to the Final Report of the Special Garrison Diversion Unit Study Commission. The Commission's proposal would triple the acreage to be irrigated in the James River Valley. This will result in flooding, deterioration of water quality, and channelization of the James River here in South Dakota. Also, the Sand Lake National Wildlife Refuge in South Dakota and the Arrowwood National Wildlife Refuge in North Dakota face potential destruction.

Our Chapter authorizes Richard Madson to speak on our behalf. Our Chapter also endorses the January 31 resolution of the Missouri Breaks Audubon Chapter of Pierre.

Sincerely,

Lawrence C. Novotny
Vice-president
Conservation committee chair

Rural Route 1, Box 48
Warner, S. Dak. 57479
March 5, 1985

Representative George Miller
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Representative Miller,

I am writing as the elected representative of rural Brown County on South Dakota's James River Water Development District, and I wish to have this letter included as a part of the hearing record on H.R. 1116. I am a farmer and landowner in the James River valley of South Dakota, just downstream from North Dakota's Garrison Unit. In last November's election, I was elected with a 67% majority by the people of rural Brown County to represent them on our new water development district board, a multi-purpose public entity charged with the responsibility of developing the water development resources of the James River valley. Concerns about the impact of Garrison return flows on lands in our valley were a major factor in my election, and in other elections up and down our river valley.

The recommendations of the Garrison Diversion Unit Commission are not wholly satisfactory in that they do not adequately address the negative impacts on South Dakota. I am fearful that the proposed tripling of irrigation development upstream from us would greatly increase flooding and also degrade water quality in the James River.

As your committee seeks to amend or alter this legislation to make it more acceptable to all the affected groups, there are two areas which at a minimum I would hope could be corrected. First, the recommendation that unused or unfeasible irrigation acreage be transfered to the West Oakes area is unacceptable to landowners downstream. In this farm economy, we see it as very likely that there will not be as many potential irrigators as the promoters of Garrison Diversion foresee. The West Oakes area is very close to the South Dakota state line, to Sand Lake National Wildlife Refuge, and to downstream farms that will in no way be benefitted by construction of Garrison. A massive expansion of irrigated acreage in the West Oakes area would be very damaging to South Dakota. As an alternative, I would suggest that funds which are not expended for irrigation development due to lack of demand could be transfered to the municipal and industrial water development included in the new project.

Secondly, we would like to see language in H.R. 1116 providing for compensation for damages to downstream landowners which would allow us to be compensated through an administrative procedure without being forced to go to court. A review commission should be appointed to hear complaints such as destruction of river bottom lands or damage to crops and make quick and equitable determinations. Funds should be appropriated for compensation of landowners. Aside from giving aggrieved landowners what is rightfully theirs, such a provision will encourage developers of Garrison to minimize the negative impacts on South Dakota farmers.

Your serious consideration of these suggestions is appreciated.

Sincerely yours,

Tom Fischbach

Tom Fischbach

March 8, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D. C. 20515

Dear Senator Miller:

I would like this letter to be part of the record.

I am strongly opposed to the Garrison Diversion Project because of the extremely high costs and the adverse affects the irrigation will have on wildlife. It seems as though the farmers on the land to be irrigated are quite successful without irrigation. I don't think the irrigation is necessary.

I am also an avid bird watch as well as a hunter in the fall. I have lived in Barnes County all of my life and I would hate to see bird populations drop because of the project. With the increase in the irrigation acreage, it would make the discharging return flows into the James River increase by 3.5 times. This would have a detrimental impact to the Arrowwood, Dakota Lake and Sand Lake National Wildlife Refuges located on the river.

Thank you for your time and consideration.

Sincerely yours,

Mark Hoss

Mark Hoss
240 Fifth Street Northeast
Valley City, North Dakota 58072

March 8, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Sir:

I am writing to ask deletion of most of the irregation portion of the Garrison Diversion Project. The irrigation along the present lake and canal could be allowed but extension to the extreme portions of the state should be deleted.

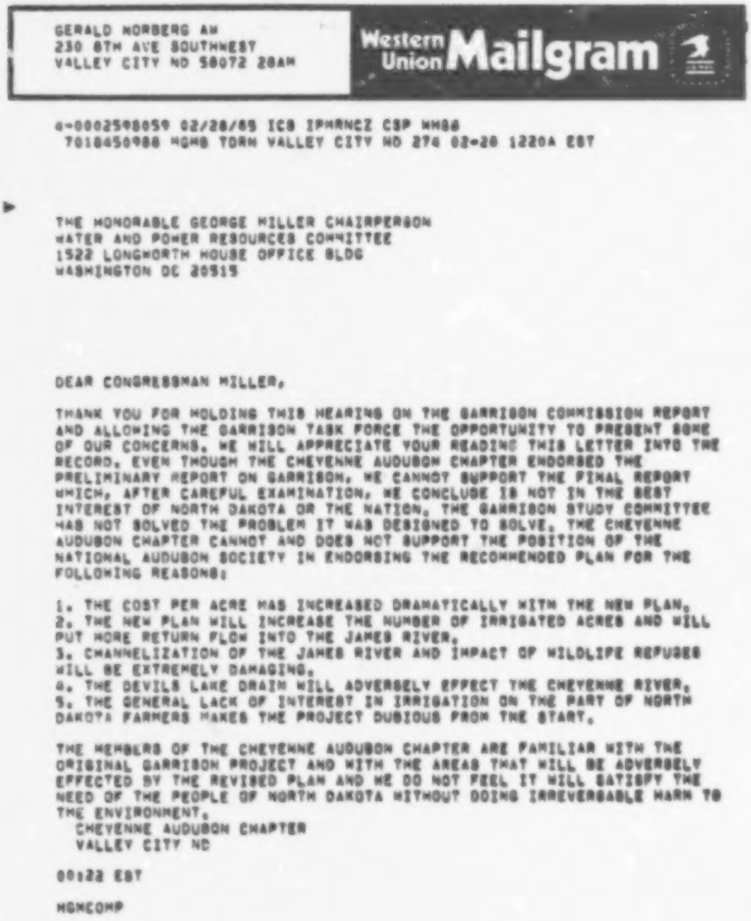
The farm surpluses now available and the extreme costs for each farm make this project economically unfeasable. It would also be necessary to disturb or destroy many acres of land to get the water to southwestern North Dakota.

To ensure water supplies for North Dakota, I would suggest a pipeline distribution system.

I would like this letter to be part of the hearing record.

Sincerely,

Gerald Norberg
230 8th Avenue SW
Valley City, ND 58072



GERALD NORBERG AN
230 8TH AVE SOUTHWEST
VALLEY CITY ND 58072 28AM

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THE HONORABLE GEORGE MILLER CHAIRPERSON
WATER AND POWER RESOURCES COMMITTEE
1522 LONGWORTH HOUSE OFFICE BLDG
WASHINGTON DC 20515

DEAR CONGRESSMAN MILLER,

THANK YOU FOR HOLDING THIS HEARING ON THE GARRISON COMMISSION REPORT AND ALLOWING THE GARRISON TASK FORCE THE OPPORTUNITY TO PRESENT SOME OF OUR CONCERNS. WE WILL APPRECIATE YOUR READING THIS LETTER INTO THE RECORD. EVEN THOUGH THE CHEYENNE AUDUBON CHAPTER ENDORSED THE PRELIMINARY REPORT ON GARRISON, WE CANNOT SUPPORT THE FINAL REPORT WHICH, AFTER CAREFUL EXAMINATION, WE CONCLUDE IS NOT IN THE BEST INTEREST OF NORTH DAKOTA OR THE NATION. THE GARRISON STUDY COMMITTEE HAS NOT SOLVED THE PROBLEM IT WAS DESIGNED TO SOLVE. THE CHEYENNE AUDUBON CHAPTER CANNOT AND DOES NOT SUPPORT THE POSITION OF THE NATIONAL AUDUBON SOCIETY IN ENDORSING THE RECOMMENDED PLAN FOR THE FOLLOWING REASONS:

1. THE COST PER ACRE HAS INCREASED DRAMATICALLY WITH THE NEW PLAN.
2. THE NEW PLAN WILL INCREASE THE NUMBER OF IRRIGATED ACRES AND WILL PUT MORE RETURN FLOW INTO THE JAMES RIVER.
3. CHANNELIZATION OF THE JAMES RIVER AND IMPACT OF WILDLIFE REFUGES WILL BE EXTREMELY DAMAGING.
4. THE DEVILS LAKE DRAIN WILL ADVERSELY EFFECT THE CHEYENNE RIVER.
5. THE GENERAL LACK OF INTEREST IN IRRIGATION ON THE PART OF NORTH DAKOTA FARMERS MAKES THE PROJECT DUBIOUS FROM THE START.

THE MEMBERS OF THE CHEYENNE AUDUBON CHAPTER ARE FAMILIAR WITH THE ORIGINAL GARRISON PROJECT AND WITH THE AREAS THAT WILL BE ADVERSELY EFFECTED BY THE REVISED PLAN AND WE DO NOT FEEL IT WILL SATISFY THE NEED OF THE PEOPLE OF NORTH DAKOTA WITHOUT DOING IRREVERSABLE HARM TO THE ENVIRONMENT.

CHEYENNE AUDUBON CHAPTER
VALLEY CITY ND

00:22 EST

MGMCOMP

Mar. 7, 1985

Dear Sir,

I'm writing this letter to voice my concern about the proposed changes in the Garrison Diversion Project. I feel that Garrison's irrigation features should be dropped. The main reasons I have for feeling this way are:

1. Irrigation means agricultural runoff; pesticides, herbicides and fertilizers will be sent to our friends in Canada in increased amounts. The Canadians don't want Garrison as it has been proposed, we should respect their wishes.

2. The farmland that would be put into irrigated production is not needed. The commodities that would be produced are not needed. The farmers in this area are having financial problems, they can't afford irrigation equipment. From the figures I've seen, the economics behind the irrigation aspect of this project are insane. ($1.6 million each for 405 farms? It'll take a lot of spuds to get any kind of a cost recovery from a situation like this)

The Garrison Diversion Project as it has been proposed in the past is a porkbarrel..

boondoggle if there ever has been one. What we need is a good rural water project, not a scheme to enrich a few.

Again, please do what you can to cut the monster down to size. We don't need irrigation in Garrison. Please make my letter a part of the hearing record on the Garrison project.

Thank You,

James Pechacek
439 4th AVE SW.
Valley City, N.D. 58072

UNITED FAMILY FARMERS, INC.
Box 573
Aberdeen, South Dakota 57401

March 4, 1985

Hon. George Miller
Chairman,
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Representative Miller:

Please include this letter as part of the hearing record on H.R. 1116. I am writing on behalf of United Family Farmers, a grass roots organization of approximately 2,000 farmers and landowners, most of whom live in the James River valley of northern South Dakota.

We are opposed to H.R. 1116 as it is presently written. Above all, we fear the impact on our valley of the massive amounts of irrigation which would create water quality and flooding problems for North Dakota's downstream neighbors.

We would ask that all Garrison construction contracts be frozen until this controversy is resolved. We would further ask that the irrigation portions of the Garrison Diversion Unit be de-authorized both because of their potential environmental impacts and also because of the astronomical cost. We have no objection to municipal and industrial water development in North Dakota.

Thank you for your consideration.

Sincerely,

Jay Davis
Executive Director

UNITED FAMILY FARMERS

Fessenden, ND 58438
March 4, 1985

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Congressman Miller:

In regard to Bill #1116, it is desired that the irrigation features of Garrison Diversion be deauthorized and removed from the project.

We do not need irrigation which would add more to the farm surplus and would further compound the family farm problem.

Please make this letter a part of the Garrision Diversion Hearing record.

Sincerely yours,

Walter Schultz

North Dakota Chapter

THE WILDLIFE SOCIETY

March 3, 1985

The Honorable George Miller, Chairman
Water and Power Resources Subcommittee
House Interior and Insular Affairs Committee
1422 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Miller:

On behalf of the North Dakota Chapter of The Wildlife Society, I would like to thank you for keeping the hearing record on HB 1116 open until March 9. I would like to have this letter included in the February 28, 1985, hearing record on HB 1116, on the Garrison Diversion Unit.

As indicated in our February 26, 1985, letter to you and in our Chapter's February 1985 "Review of the Garrison Diversion Unit Commission Final Report", we are very concerned that the Commission recommendations had provided a path toward expanding the Garrison project to 320,000 acres rather than reducing it to a 130,000 acre project. Testimony provided by the Bureau of Reclamation and the North Dakota project proponents confirmed those concerns.

The original Garrison has long been recognized as a net loser for wildlife. The 1979 Environmental Impact Statement said that 197,000 acres were needed to offset the then-known losses of the project, although only 146,530 acres were authorised for mitigation. If the Commission recommendations become merely an "add-on" to the authorized Garrison, the fish and wildlife impacts will be far greater than ever anticipated. U. S. Fish and Wildlife Service data indicate that the wetland loss and impacts would exceed 83,000 acres. However, the Commission's recommendations on mitigation deal only with the 130,000 acres of irrigation. It is logical to assume that if the impacts from an expanded Garrison increase, the mitigation needs would increase. Unfortunately, adding acres to a mitigation plan, although mathematically offsetting the habitat losses, will not be acceptable to the public. It also is not in line with what the Commission was appointed to do; resolve the environmental impacts.

The most efficient way to mitigate impacts is to avoid the impacts by not building those features which destroy fish and wildlife habitat. For the Garrison project, located in the heart of the Prairie Pothole

Dedicated to the wise use of all natural resources

The Honorable George Miller
March 3, 1985
page two

Region, this means reducing or eliminating the irrigation and thus, the need for project reservoirs, canals, and drains. By developing the Commission's recommendations for municipal and rural water systems via pipelines, the environmental impacts of the project would be minimum. Such a project could still provide good water supplies to over 370,000 people in North Dakota.

We also ask that the Subcommittee consider freezing all construction contracts for Garrison for fiscal year 1985, until the Subcommittee has decided which portions of the authorized Garrison project or the Commission recommendations to authorize.

Again, as we indicated in our February 26, 1985, letter to you, we believe that the Commission did not solve the environmental, economic, and international problems of the Garrison Diversion Unit. We, therefore, ask the Subcommittee to modify the Garrison project to solve those problems. If the North Dakota Chapter of The Wildlife Society can be of any assistance, please contact us.

Sincerely,

Michael R. McEnroe

Michael R. McEnroe, President
North Dakota Chapter of
The Wildlife Society

Valley City, ND 58072
March 5, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth
Washington, DC 20515

Dear Congressman Miller:

Please include this letter in the Garrison hearing record.

I urge you to deauthorize all irrigation and delete all supply works from the Garrison Diversion Unit.

The costs, both economic and environmental, for the irrigation aspects of the project cannot be justified. Irrigating productive dry land agricultural land is not economically feasable, especially with the current agricultural economy. A subsidy of over one million dollars per irrigated farm is way too high to be seriously considered by responsible legislators.

I am familiar with the areas to be affected and have visited them many times. This is especially true of the wildlife refuges and the Sheyenne River Valley. Some of the finest wildlife habitat and agricultural areas in the state would be destroyed or degraded.

The Garrison Diversion Unit Commission failed to resolve any of the major problems it was charged with resolving and would make some more severe, especially the impacts on the James River. Irrigation of over 100,000 acres in this drainage basin would literally destroy a magnificent river ecosystem and have severe economic and social impacts in both North and South Dakota.

As a member of the Sierra Club, the National Audubon Society, and the National Wildlife Federation I support the position of the Sierra Club in not supporting the Commission Report and do not understand how the other two organizations can support such an environmentally destructive plan.

Sincerely,

William L. Moore
Associate Professor of Biology
Valley City State College

March 5, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 House Office Longworth Building
Washington, D.C. 20515

Dear Mr. Miller:

As chairman of the Subcommittee on Water and Power Resources, you have a great opportunity to suggest changes to the Garrison Diversion Project in North Dakota. That is the reason I'm writing this letter.

Garrison as authorized in 1965 would be a serious mistake. How can we justify spending millions of dollars to subsidize irrigation when part of the current farm crisis is caused by excessive federal spending and large grain surpluses? Most of land scheduled for irrigation is far removed from the Missouri River (the project water source). Considerable irrigation could be developed along the Missouri River without expensive and environmentally destructive distribution features, if there was a need in North Dakota for irrigation.

I ask that you strongly consider deleting the irrigation features of the Commission Plan and direct your committee's efforts towards a pipeline system for municipal, rural and industrial water. This would truly meet North Dakota's water needs and reduce the environmental impacts especially those that harm Canadian fishing programs.

Times have changed since 1965 and it's also time for Garrison Diversion to change. I ask that this letter be part of the hearing record and also that you strongly consider these suggestions in your efforts to get Garrison reauthorized.

Sincerely,

Frank K Pfeifer

Frank K. Pfeifer
1123 2nd Avenue NW
Valley City, ND 58072

March 5, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Representative Miller:

Please enter these comments into the record on the Garrison Diversion Project.

The large grain surpluses which exist today do not justify federal expediture of funds for irrigation projects which further increase grain surpluses, drive down grain prices and further the demand for additional federal subsidies to farmers. At a time when federal aid for social programs, education and the farm crisis is being severely cut, how can Congress justify a $1.6 million subsidy for each of 408 farms to irrigate land presently in surplus production? I recommend the irrigation features of the Garrison project be dropped. This will lessen the environmental impacts caused by the network of canals and reservoirs, resolve the Canadian and South Dakota concerns with the project and eliminate a very costly inefficient use of water.

I support the development of a pipeline project for industrial and municipal water use. A pipeline project would address North Dakota's right to water from the Missouri River and use it in a very efficient manner. The impacts to the environment, loss of land and disruption of farms is also removed. Of even greater value is that more people could realize benefits from a pipeline project for municipal and industrial use.

I am optimistic that your committee will take a responsible approach, separate from political pressures to revive the sacred cow which Garrison has become, and make necessary changes in the authorization for the Garrison project. In doing so, more people in North Dakota and the country will benefit. Thank you for your consideration of these comments.

Sincerely,

Lloyd A. Jones
Route 2, Box 54
Valley City, ND 58072

4155 Rahn Rd.
Eagan, Mn 55122
3-4-85

Honorable George Miller Chairman
Sub Committee on Water & Power Res.
1522 Longworth Wash D C 20515
Dear Mr Chairman

I am writing to request that irrigation be deauthorized, and all irrigation supply features be left out of the N. Dak Garrison Div Project, irrigation in ~~east~~ Central N D is not profitable, no farmer should be subsidized many thousands of federal dollars to irrigate land to try to raise more, of what we have already in surplus, over supply. in such hard pressing times as we now have that money should be saved.

I would also request funding be frozen on all all construction, of the Garrison Div project and no more contracts be let until a acceptable Garrison plan be made

I ~~am~~ own land in [illegible] to the Oak near the N R Canal part of the Garrison Div Project. I would also request this letter be part of the hearing record concerning Bill HR 1116

Thank you.
Timothy Bauer
4155 Rahn Rd. Eagan Mn. 55122

March 4, 1985

Dear Mr. Miller;

I am a farmer and former member of the Garrison Diversion Conservancy District board. I have been opposed to the Garrison Diversion Project because of the 220,000 acres of good land taken out of production for reservoirs and canals to irrigate 130,000-250,000 acres. Much of the land to be irrigated is situated on an abundant acquifer.

I don't think there will be many takers if irrigation ever becomes available as most people don't know the details involved in the 40 year contract that people in an irrigation district must sign.

In 1983 one farmer from Turtle Lake, North Dakota put his irrigation acres in the PIK Program and realized the best profit ever.

I feel that all irrigation should be taken out of the Garrison Diversion Project. That money could be used to defray the cost of piping water to the cities. This project is only 20% complete, so let's not throw good money after bad.

I feel that all construction on the project as well as the funding should be stopped until the controversy over this project is settled.

Please enter my comments into the hearing record.

Sincerely,

Arnold A. Seibel

R. 2, B. 69
Harvey, N. Dak.
58341

March 3, 1985

Dear Chairman Miller;

I am a North Dakota farm wife and am writing concerning the Garrison Diversion Project.

The Garrison Diversion Unit Commission supposedly offered a compromise - but it has turned out to be a wolf in sheeps clothing If anything, Garrison Diversion will now be worse than the authorized project. Farmers are going broke all over our country and won't be helped by the Federal government, yet that same government will heavily subsidize some 400 farmers to raise more grain for which there is no fair price We surely don't need irrigation to raise crops in North Dakota. Because of this, I feel that when HR 1116 is rewritten, the language involving irrigation and features supplying irrigation districts should be deleted.

I also think there should be a construction moratorium for 1985 on the New Rockford Canal.

Somewhere there has to be someone who will listen to the North Dakota farmers and landowners who are involved in this project. We can't afford to go to Washington, D.C. because we are paying the tabs of our legislators, governor, and Garrison Diversion Conservancy District directors to go there and tell you that "North Dakota needs Garrison Diversion because it was promised to them." Well, we need that project like we need another hole in our heads! We're not "dumb farmers" -- please don't treat us as such!

I would like to have this letter entered into the hearing record.

I would appreciate anything you can do to save us from the "benefits" of Garrison Diversion.

Sincerely
May Seibel
R. 2, Bx 69
Harvey, N. Dak. 58341

AMERICAN PUBLIC POWER ASSOCIATION
2301 M STREET NW WASHINGTON DC 20037 • 202/775-8300

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Raleigh, North Carolina
WYLIE H. SMITH
Dothan, Alabama
JACK K. SPRUCE
San Antonio, Texas
DONALD L. STOKLEY
Municipal Electric Authority of Georgia
Atlanta, Georgia
ROBERT C. YOUNG
Burlington, Vermont

March 7, 1985

The Honorable George Miller
Chairman
Subcommittee on Water and Power
Resources
Committee on Interior and Insular
Affairs
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Miller:

On behalf of the American Public Power Association, I respectfully request that the enclosed resolution be included in the hearing record on the Garrison Diversion Unit. The resolution, adopted by the Association's policy committee during its annual winter meeting last week in Washington, D.C., opposes the use of power revenues from the Pick-Sloan project to repay costs of municipal and industrial water development.

During your February 24 hearing on the Garrison Diversion Unit, the State of North Dakota offered an alternative which would not require that power revenues be used to finance municipal and industrial water systems. The subcommittee should carefully examine this alternative. For sound public policy reasons, municipal and industrial water costs have never been financed by federal power revenues. We urge you not to permit the Garrison Diversion Unit to establish such a precedent.

Sincerely,

Alan H. Richardson
Assistant Executive
Director

AHR/slm
enclosure

cc: Members, Subcommittee on Water and
Power Resources

RESOLUTION ON OPPOSITION TO SUBSIDIZATION OF MUNICIPAL AND INDUSTRIAL WATER COSTS OF FEDERAL RECLAMATION PROJECTS FROM POWER REVENUES

WHEREAS, under the federal reclamation laws, power revenues do not subsidize municipal and industrial water costs, and

WHEREAS, the Garrison Diversion Unit Commission included in its recommendations a proposal that the foregoing principle of reclamation law be changed so as to require that approximately 80 percent of the $401 million estimated cost of a recommended municipal and industrial water development be repaid by Pick-Sloan power consumers, and

WHEREAS, the state government of North Dakota has expressly recommended that "Increased Pick-Sloan power revenues should not be considered as a source of repayment for capital costs of municipal projects" and further has recommended a less costly, more flexible municipal and industrial water program under which the state of North Dakota would share 25 percent of the capital costs;

NOW, THEREFORE, BE IT RESOLVED: that the American Public Power Association:

1. Commends the state government of North Dakota for its opposition to the use of Pick-Sloan power revenues to repay costs of municipal and industrial water development; and

2. Urges the Congress, in acting on Garrison legislation or other similar legislation, to reaffirm the principle embedded in the federal reclamation laws that municipal water costs not be imposed on power users.

-- Adopted by the Legislative and Resolutions Committee of the American Public Power Association at its meeting February 27, 1985, in Washington, D.C.

The Honorable George Miller, March 4- 1985 Drake N. D.
chairman Subcommittee on water and power Resources
1522 Longworth Washington, D. C. 20515

Dear Honorable George Miller.

I am writing to ask that all irrigations portions of the Garrison Diversion project be deauthorized. also to have the Garrison Diversion conservancy district deauthorized. what we need is better prices for farm produce not more expence, and waste. I also ask that this letter be included in the record as part of the testimony on House Bill H.R. 1116.

Sincerely
Marie Bluemhagen

March 4, 1985

The Honorable George Miller, Chairman
Water and Power Resources Subcommittee
House Interior and Insular Affairs Committee
1422 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Miller:

We are writing to you about the Garrison Diversion Unit. Please enter these comments into the hearing record on HB 1116. North Dakota's residents need better municipal and rural water supplies; they do not need Federally subsidized irrigation. Our wildlife resources do not need the massive wildlife impacts or the unworkable mitigation plans to offset those impacts.

In these times of agricultural surpluses, low commodity prices, and Federal budget deficits; it makes little sense to spend over $5000 per acre to increase agricultural production and agricultural surpluses.

In your Subcommittee deliberations on HB 1116, please consider deleting the irrigation portion of the project and authorizing the Garrison Commission's recommendations for development of a rural and municipal water system for North Dakota. This would reduce the cost of a diversion project, meet some of North Dakota's water needs, and would not increase crop surpluses, and would not have the environmental impacts as a result of canals, reservoirs, and drains for irrigation.

In addition, please consider freezing all construction contracts for fiscal year 1985 for the Garrison Diversion Unit. It does not make sense to continue spending Federal dollars for features of a project, when it is not known which parts of the project will eventually be needed.

Thank you for extending the comment period on this bill.

Sincerely,

Mr. Michael R. McEnroe
Mrs Michael R. McEnroe

Mr. and Mrs. Michael R. McEnroe
Rural Route #1
Moffit, North Dakota 58560

Greg Mueller
RR Box 61
Dazey N. Dak
58429

Honorable George Miller
Chairman of Sub Committee
of Water & Power Resources
1522 Longworth
Washington D.C. 20515

Honorable George Miller:

I'm a farmer from southeast North Dakota and I oppose the House bill 1116 (Funding of Garrison Diversion Project) I have several reasons for my thinking: First I feel the cost of the project is much greater than we (the citizens of N.D.) will be receiving back from the project. I'm worried about the management of irrigation, the efficiency of irrigating [illegible] [illegible] [illegible] [illegible], I have talked to farmers that irrigate, they say it really doesn't pay to use water for irrigation.^no The cost is to great. The county of Barnes County in which I live, will not be getting any benefit from the project, so why should my tax dollars be spent on this. The rate farming is going, there will be no people left in North Dakota to [illegible] on the water. [illegible] [illegible] then what to do? Will there be a lot of drainage into the [illegible]? Many cities & industry that have access to the water now, ~~doesn't~~ Doesn't use it because of the salinity of the water. The migration of birds have changed since the project has started, the fly pattern has gone farther west eliminating the Lake Audubon waters. The nesting was excellent before the Garrison Diversion Project was here. I feel the project only benefits a very few. If North Dakota is in turn for a handout from Federal government please put the money in the agriculture department. Please consider my thoughts and defeat the house bill 1116 (Funding of Garrison Diversion Project). Thank you for your time.

Sincerely,
Greg Mueller

March 8, 1985

Hon. George Miller, Chairman
Subcommitee on Power and
Water Resources
1522 Longworth
Washington, DC 20515

RE: H.R. 1116

Dear Congressman Miller:

As a resident of North Dakota, I have been concerned about the environmental impact and the economic feasibility of the Garrison Diversion Project for the past 14 years. After reviewing the Garrison Diversion Unit Commission's Final Report, I am particularly concerned about the additional irrigation recommended for the James River area. I believe that the additional return flows from the irrigation will result in significant environmental degradation to the James River.

I believe that a federally funded water project for North Dakota ought to be directed toward providing municipal and industrial water supplies. A project for municipal and industrial water would provide far greater benefits at far less costs than an irrigation project. I urge you to amend H.R. 1116 to delete the irrigation from the James River area and to increase stream flows in the Sheyenne and James Rivers through a closed pipeline system. I would also appreciate having this letter included as part of the record on H.R. 1116.

Sincerely,

Jim Stewart

Jim Stewart
3006 Homestead
Bismarck, North Dakota 58501

Drake, North Dakota, 58736
March 5, 1985

The Honorable George Miller,
Chairman, Subcommitte on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Chairman;

I respectfully request the Subcommitte to deauthorize all irrigation portions of the Garrison Diverson project. Small farmers cannot afford the cost of irrigation.

I also ask that the Garrison Conservancy District be DEAUTHORIZED.

I ask that my letter be included in the record as part of the testimony on AHOUSE BILL H. R. 1116.

Sincerely,
Marie Soderberg
Marie Soderberg,
Box 395, Drake. N.Dak. 58736

South Dakota Resources Coalition

Volunteers in the Public Interest

Drawer G. Brookings, S.D. 57007

The Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D. C. 20515

Dear Representative Miller:

We strongly oppose H. R. 1116 in its present form. The James River in South Dakota is a meandering prairie river, a rich wildlife and recreational resource. It cannot handle massive amounts of irrigation return flows. Either much flooding and water quality deterioration will result or the river will have to be channelized. Either of these alternatives is unacceptable.

The Garrison Diversion Unit is an exorbitantly expensive project both financially and environmentally. Its problems have been well documented throughout years of controversy. At this time of national fiscal crisis and continuous farm surpluses, more irrigation is the last thing either North Dakota or the nation needs. The development of massive irrigation in the James River valley will require large amounts of federal money for South Dakota to build the so-called Garrison Extension project to irrigate thousands of acres in South Dakota—at least that is what irrigation interests here will be fighting for.

It appears to us that the responsible course of action would be to de-authorize the irrigation sector of the Garrison Diversion Unit. We are sure that you are well aware that even without interest irrigation can never repay the enormous investment required. Federal power users and taxpayers should not be saddled with repayment of an unneeded and destructive project.

North Dakota appears to need municipal water development. We have no objection to federal assistance with such development. But we feel it is imperative that no further work be done on Garrison until an acceptable compromise is reached.

Thank you for your consideration.

Very truly yours,

Esther R. Edie

Esther R. Edie
Chair

Lakota Audubon Society, Brookings • Missouri Breaks Audubon Chapter, Pierre • Black Hills Energy Coalition
National Catholic Rural Life Conference, Sioux Falls Diocese • CRUD (Community Recyclers of Usable Discards, Sioux Falls)
Dakota Environmental Council, Vermillion • Upper Sioux River Basin Conservancy Council • South Dakota Lung Association
Brookings County National Farmers Organization • Lake County National Farmers Organization • South Dakota Ornithologists Union
Dakotah Chapter of the Sierra Club, South Dakota Section • Soil Association of South Dakota
Individual Citizens of the State of South Dakota

This sheet is 100% reclaimed paper

521 4th AVE. N.W.
Valley City, N.D. 58072
March 4, 1985

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Chairman Miller:

Re. H.B. # 1116:

I am a lifelong North Dakota resident who has followed the issues surrounding the controversial Garrison Diversion Project for many years. I am writing to you now to say that, quite frankly, the only part of this incredibly costly project that seems justifiable to me is the provision of municipal / industrial water supplies.

I am urging you to support *deauthorizing* all the irrigation aspects of this project, including the irrigation districts themselves. This project proposes an irrigation scheme whereby the *federal* irrigation costs *per farm* would be $1.65 million (that's up from $1.2 million per farm under the originally authorized project), and that is just plain *obscene*!

Furthermore, the recent Garrison Diversion Unit Commission's plan *fails* also to resolve the environmental and international impacts that make the whole scheme unsupportable.

What possible alibi – other than porkbarreling – could there be for supporting such a project?!

Please also include the contents of this letter as part of the official hearing record on this issue.

Thank you.

Sincerely,
Vicki Voldal Roseman

march 4, 1985

Dear mr. miller

I would like to request that my letter be included in the official hearing record on garrison diversion. That all works for irrigation be delited. we have such a surplus of spring wheat now. why should we irrigate to produce more. why must we dig canals to send our water into Canada, they don't want it. why insult one of our few friendly neigbors that we have left.

This great N. Dakota "Boonedoggle" has all'redy destroyed many acres of good farm land, cut off our roads and will destroy many more acres be-fore it is completed.

Please do all you can to stop it, its a waste of the tax-payers money.

Sincerly
Donald newman
Box 78
Fessenden N. Dak
58438

Mar. 9, 1985

Dear Sirs:

I am writing in regard to the Garrison Diversion project. I have lived in North Dakota my entire life. I presently live in West Fargo. Before moving to West Fargo, I lived near Valley City where I farmed.

I recommend that the irrigation part of the project be dropped or deleted. The pay back for the money spent will not justify the project. This would be a very wasteful use of Taxpayers money. Also, the amount of land that would be used for canals and reservoirs would be costly to the farmers in the area of the canals since they would loose cropland. I don't believe that irrigation would help the farmers in the area effected by Garrison Diversion, Irrigation is very expensive and farmers do not have funds available to them for such expenditures. Farm problems are partly do to Large Grain surpluses already.

I do support the developement of a pipeline distribution system for industrial or municipal use. Water would be used more efficiently and the impact on the environment would be lessened. This would also not affect neighboring states and Canada,

I ask that this Letter be made part of the hearing record on the Garrison Project.

Sincerely,

[illegible] N.D.
March 7 1985

Honorable George Miller
Chairman of the Subcommittee
on Water and Power Resources
1522 Longworth
Washington D.C.

Dear Mr. Miller

Although I am an Audubon member I do not agree with their position of supporting the final version of the study commission on Garrison.

As a North Dakota citizen and as a landowner, I feel that the irrigation portion of Garrison Diversion should be completely [illegible]. But it is far too expensive for the general economy - only a few would benefit while most would lose. Loss from having the burden of it. Many will actually suffer damage to their farms and everyone in North Dakota will be affected by the deterioration of the natural streams and rivers from channeling and [illegible] quality.

I do support that portion of Garrison diversion which would allow pipelines to municipalities that need an additional source of water supply.

Please include this letter in the hearing record of Garrison House Bill # 1116.

Sincerely,
Clara E. [illegible]

3-4-85
Fessenden, N.D.
58438

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington DC 20515

Dear Sir,

Please include my letter in the Garrison Diversion hearing record.

I would ask that you remove all open ditches canal and irrigation systems from the Garrison Project. It can be replaced with buried pipe for M+I and rural water systems.

Irrigation won't help us in raising more crops, as we can't sell the crops we have now and farmers are going broke.

a farmer from
North Dakota

Rita E. Liel
Fessenden, N.D.
58438

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth
Washington DC. 20515

3-5-85
Fessenden ND
58438

Please Include my letter in the Garrison Diversion Hearing Record.

I would ask that you delete all open ditch canals and Irrigation Delivery Systems from the Garrison project, and replace it, By pipeline with Rural and domestic water systems.

I also would ask that you stop all current, and future funding for the project, and put a freeze on all work that is planned for the spring and summer of 1985 untill this matter is resolved once and for all — By All Partys Involved!

We don't need help producing larger crops By Irrigation, and adding to the surplus of commodities.
We need help in getting Better prices for are crops and Lower Interest Rates!

A North Dakota Farmer
from Wells County

Kerry OBri

Fessenden, N.D 58438
March 6, 1985

The Honorable George Miller Chairman
Subcommittee Water + Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Miller:

I am a active farmer and live in Wells County, North Dakota, by active farmer I mean it is my but that sits on the old John Deere tractor seat. when the farm work is being done. It is also the same but that the Banker and Bill Collectors are after.

I am asking that you delete all irrigation from the Garrison Diversion project. the farmers do not need more grain from irrigation at this time, we need a better price for the grain we are now producing. More grain from irrigation will just drive the prices of farm products still lower and there are enough farmers out here going bankrupt right now. Because the prices of farm products are already below the cost of production.

Please include my letter in your hearing records,

thank you Sir:

Robert [illegible]
R# 1, Box 33
Fessenden, N. Dak. 58438

Mar 6 - 1985
Fessenden No Dak
58438

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth, Washington DC 20515

Please include my letter in Garrison Diversion hearing record.

I would ask that you delete all Open ditch Canals and irrigation delivery systems from the Garrison ~~syst~~ project. Replace it with buried pipe for M&I and rural domestic delivery systems

We don't need help in raising more crops. we need help in selling crops.

The last Garrison Commission estimated the cost of getting ready and equipting one acre of land would cost between $4000 & $5000 per acre for irrigation. This would break ½ of our Farmers.

A North Dakota Farmer from Wells County

Yours Truly
Fred Ebel
Fessenden, No Dak.
58438

Mar. 4 - 85
Fessenden N.D.
58430

Honorable George Miller - Chairman,
Subcommittee on Water + Power Resources,
1522 - Longworth, Washington D.C. 20515

Please include my letter in the Garrison Diversion hearing record.

I would like you to delete all open ditch canals, and irrigation delivery systems, from the Garrison Project. Replace it with buried pipe for M + I and rural domestic delivery systems,

We dont need help in raising more crops, We need help in selling our crops,

A-N. Dak. Farmer
from Wells County.
Erna Ebel

R.1, Box 36,
Norwich, ND
Mar. 8, 1985

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth, Washington, DC 20515

Mr. Chairman:

Will you please include this letter in the hearing record for the Garrison Diversion project?

Our request is that the acreage for irrigation from the Garrison Diversion Commission Plan be deleted. The reason for this is that the the cost of machinery needed for irrigation is out of line with the current market prices for crops raised on irrigated acres.

We would also ask that you eliminate the plans for the Lonetree Reservoir, permanently and definitely.

Respectfully,

Mr. & Mrs. D. C. Lenton.

Mr + Mrs. D.C. Lenton

Randy Toppen
261 6th St. NW
Valley City, ND

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Miller,

I would like to recommend the irrigation features of the Garrison Diversion Project be dropped or deleted. I would also ask that this letter be made part of the hearing record on the Garrison Project.

My recommendation is based on my interest in wildlife preservation, the proper management of North Dakota's precious wetlands, and my knowledge of the impact this project would have economically on North Dakota's farmers.

I thank you for your support and concern.

Sincerely Yours,

Randy Toppen

1 S 2C 10 St SW
Minot, N. Dak.

Hon George Miller
Chairman Subcommittee
on Water Resource.
1522 Longworth
Washington DC. 20515

Dear Mr. Miller

I would like to address a few remarks regarding Garrison Diversion in N. Dak.

I am a retired farmer and I own land that will be channeled through by this project if build. In fact it will cut through three quarters of my land. causing us great damage. This is toward the west end of Velva land.

One of the principal purposes for this project is irrigation. The cost of this project may run ~~of~~ over one million dollars per average farm. A good majority of the farmers I have talked to can not afford irrigation, it will indebt them for life and also several generations to follow.

We do not live in an arid area. We have an average of 16 inches of rain per year. In the Oakes area N.D., area they ~~have~~ have more

Our growing season is also ~~short~~ too short for irrigation farming.

I would like to request your consideration of of the complete deletion of the Lone Tree ~~Reservoir~~ reservoir

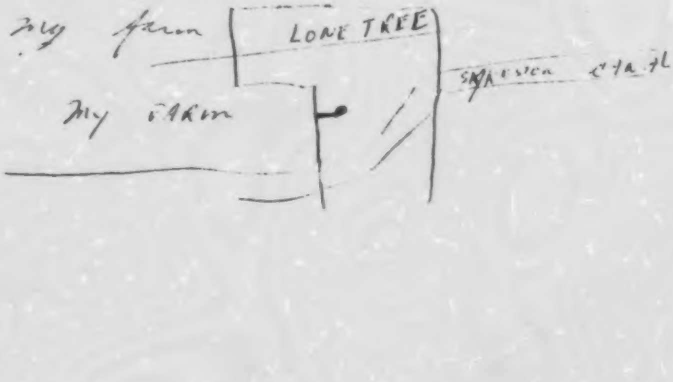
In the case of the cities in N. Dak. that may need water in the future, a program of pipe lines will have to be studied — It seems that this will result in the good of the problem.

Respectfully
Norman Moen
1520 10th St. S.W.
Minot N. Dak.

Dear Sir

I am writing in regards to Bill # 1116 on ~~S~~ Sykeston C and + Lonetree Division.

I am a young farmer age 32 I started with my father when I was 20. I have seen what irrigation has done to him and people I know. I have seen and had to complete with my friends and neighbors for the land that is left after they have brought land for Lonetree. In a time when agriculture is having a hard time it has caused unfair competition with people wanting to farm and having to pay land rent + purchase price 150% of the surrounding area. It's not bad enough what we have there we will be losing land to a project that has no chance of ever paying for itself (Lonetree Res). Now they want to leave this mess and start Sykeston Canal. The effect on our operation is not hard to see. Lonetree hurt us bad enough but Sykeston C and ~~my~~ may cause us to have to quit. See map.



I am if they pay me good for my land I only own 120 Ac. and rent about 1000 more But. between the Lonetree & Sykeston Canal it goes through the middle of everything. Farming is my life & I am a good farmer. My problems have been many but I have been able to get around and solve them. But this mess the Bureau of Reclamation has got [illegible] into & me & my neighbors will only benefit them as the part of government. It promotes projects like this to exist without it there is no need for it.

I urge you to put a stop to it now for my sake mostly & also for the area I live in many people have been forced out of farming here already. If Sykeston Canal goes thru I will have to quit and some of my neighbors will too. I like where I live and want to stay here. Please do what you can. [illegible] chance of fighting it is [illegible] by writing you this letter (Please)

With a sad Heart

[illegible] Sargent

March 4, 1985

Honorable George Miller
Chairman
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Sir:

I would like these comments entered into the hearing record on HR1116 regarding the Garrison Diversion Unit in North Dakota.

At a time when American farmers are capable of producing themselves into financial crisis. When there exists terrific pressure to curtail production and or institute all manner of Federal Programs to "save the family farms", it seems farcial to continue to develop irrigation to further increase production. Therefore I would urge your committee and yourself to do anything in your power to eliminate the irrigation aspects of the GDU.

If farm economics and federal budget problems are not enough you should also consider that the project is ill conceived and in the case of the James River drainage to be implaced in a basin which cannot handle the return flows. Also at $5,000 plus cost per acre, most of the farms benefitted could be bought for the cost of one years interest on the federal expenditure.

Respectfully yours,

Jerome P. Sabbe

Jerome P. Sabbe
A30 Holiday Park
Minot, ND 58701

Honorable George Miller, Chairman
Subcommittee on Water + Power Resources
1522 Longworth
Washington, D.C. 20515

Request that irrigation be deauthorized and all irrigating supply features be left out. Request that all funding for contract bids be frozen so no construction will progress until an acceptable Garrison plan be made.

Ask that this letter be part of hearing record concerning bill HR 1116

Gary Hoornaert, Manfred. N.D.

BEST COPY AVAILABLE

3/7/85

George Miller, Chairman
Subcommittee on Water and Power Resources
1522 House Office Longworth Bldg.
Washington, DC 20515

Dear Congressman Miller:

This communication concerns the Garrison Diversion Project in North Dakota. You've no doubt been deluged with the wit and wisdom of project proponents in an attempt to sway your committee's final recommendations. I, too, desire to influence your decision and respectfully request that my comments be included in the hearing record.

As a life-long North Dakota resident, landowner and farmer, I've kept abreast of project developments and controversies since authorization. Most recently, I worked to review the products of the Garrison Diversion Unit Commission (GDUC) and provide constructive criticism of that endeavor. Throughout the four-month process, I maintained my support for the buried pipeline concept of municipal, rural and industrial water delivery. Irrigation as currently proposed, simply cannot be justified economically or ecologically, especially in light of the present budget deficit and farm crisis, not to mention the international ramifications. The last thing we farmers need is more federally subsidized, worthless grain flooding the market. What we do need is reasonably priced, potable water throughout the state. A pipeline would assure delivery.

We North Dakotan's have the dubious distinction of having two (2) -- billion dollar projects being built concomitantly in our state: Garrison Diversion and the Great Plains Coal Gasification Project. We've been told repeatedly that GDU is 30% completed. Hence, the project must go forward or all the capital invested will be wasted. It is interesting to note however, that just recently, sponsors of the Great Plains Gasification plant, which was 90% complete at the time, were willing to abort the project *if* federal loan guarantees were not approved. This simply proves to me that more wisdom is employed in the spending of private sector dollars than in the expenditure of public funds. Please exercise a little common sense with our tax money!

Another campaign of misinformation we here in North Dakota are subjected to is the "treated water to augment stream flow" argument. Why would anyone want to sterilize water at the headwaters of the Sheyenne River, run it down many miles of natural stream channel, subject it to a multiplicity of environmental contaminants, then retreat it before it can be used for human consumption? The GDUC recommended that the costs of construction, operation, maintenance, and replacement of a treatment plant for release to the Sheyenne River be non-reimbursable. Who then, is going to pay for it? I certainly don't think the American taxpayer should be responsible for such a ludicrous proposal. It seems to me that a single treatment followed by direct pipeline to the intended municipality would be far more cost-effective.

I suspect the logic, if their is any, behind the use of open river conveyance systems is simply pollution abatement. Our streams are routinely used as open sewers; waste assimilation and dilution of nutrients and biocides contained in irrigation return flows to meet water quality standards, is clearly an unjustifiable use of such expensive water.

The last item I'd like to address is the James River. The prognosis under either the authorized plan or the Commission plan is not good. While other states are repenting for their sins by mitigating for losses of riparian habitat and initiating stream habitat enhancement projects, North Dakota is contemplating channelizing portions of the James. Construction agencies prefer to call it channel improvement, but to me, channelization is the ultimate form of stream degradation.

You've no doubt been informed of our Missouri River and associated river valley land sacrifice, and it was enormous. While we collectively threw our energies behind various schemes to utilize the copious quantities of water in the newly constructed, mammoth reservoirs, we failed to realize -- or even stop to mourn -- the passage of the once magnificent Missouri River. Now we are being asked to casually sacrifice the James.

North Dakota is not rich in rivers. The James is not a wild and scenic river by any stretch of the imagination. But like all our intermittent prairie streams, it is a valuable natural resource, deserving of proper stewardship for future generations. Garrison Diversion, even as reformulated by the GDUC, will have a profound and lasting adverse impact on the James. With respect to the James, I'd like to leave you with one final thought: Engineers can put a man on the moon but can they make a river wild?

So please Congressman Miller, in your deliberations, consider the pipeline alternatives of Garrison Diversion. Give us what we need, what we can afford and what we can live with. Thank you.

Sincerely yours,

Gene Van Eeckhout

Manfred, N. Dak
March 6, 1985.

Hon. George Miller -
Subcommittee on Water-Power -
Washington, D.C.
Dear Hon. Miller -

In our area we are very disappointed at the Continuation of funding the Garrison Diversion Project, until possibly a time when something acceptable will be presented.

In my Case personally it will be the loss of my home that I have had all my lifetime, the destruction of good farm land, the cut-off of roads and Many other problems the the project will Cause. The continuation to force this unwanted project upon the people must be stopped immediately, and funding is the only thing that will bring this to a halt.

Irrigation in this area is not needed, and is of no major importance, and should be de-authorized and possibly be left out. The whole project has been nothing but trouble for us for almost 15 years, since the Bureau of Reclamation has tried to become the boss and ruler over us here. So far I have not accepted any of their offers, and never will.

As for funding for new Contract bids, I recommend and request that as the situation is, that all funding for new Contract bids be immediately frozen to prevent any new Construction until we have something or some acceptable plan given to us.

We had hoped that this project would have been stopped by Now, but with funds we find that is not so.

Let this letter be a part of the hearing record concerning bill HR1716.

Thank you in advance for keep in my request.

Sincerely,

Adolph E. Shirley

Mercer. N.D.
March 6 1985

Honorafle George Miller
Chairman Sufcomittee on Water & power Resources

1522 longworth
Washington D.C. 20515

I request that all irrigation and features suppling irrigation districts fe deleted when H R 1116 is rewritten, in regard to the Garression Diverson Prodject in North Dakota. I favor water for cities, if a program can fe worked out were the cost would fe resonafe to the users. this should fe piped water. let us not always destroy more. than the good the End ~~result~~ result will acheive.

I ask for a halt in construction

and funding because nobody seem to know just what we are really going to builds out Nation has been spending a lot of money on Worthless Project. lets stop it.

I ask that my letter be Included in the hearing record

Leland Vossler
Mercer. N Dak
Box 5. 58559

1616 [illegible] St.
[illegible], Cal
March 5, 1985

Honorable George Miller, Chr
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Chairman,

I'm requesting that irrigation in drainage and all irrigation supply features be deleted of the Garrison Diversion Project. I am aware that the New Rockford Canal and irrigation is not profitable in that area (Central N.D.) I request funding be stopped so no construction changes or new contracts be made until acceptable plans be made.

I request this letter be part of the record, concerning bill H.R. 1116.

Sincerely,
[illegible]
1616 [illegible] St.
[illegible], Cal.
91352

Manfred, No. Dak.
March 4, 1985

Honorable George Miller, Chairman
Subcommittee on Water + Power Resources
1522 Longworth
Washington, D.C., 20515

Dear Mr. Chairman,

I'm requesting that irrigation be deauthorized and all irrigation supply features be left out of the Garrison Diversion Project. Irrigation is not a profitable deal in Central No Dak I request funding be frozen so no construction will progress or no contracts be let until an acceptable plan can be derived.

With such a tight economy why waste what we do have on such a project.

I would request this letter be part of hearing record concerning bill H R 1116

Sincerely,
Erwin Bosse

Dear Mr Chairman

I request that construction on the Garrison Diversion Project and the Sykeston Canal be stopped, and all future construction be halted, until we know what the proposed route is to look like, without spending further money. Furthermore I reject the Commissions recommendations on the Sykeston Canal. I ask that my letter be included in the hearing record.

How can a young farmer compete with U.S. Wildlife and the Bureau of Reclaimation? When they can afford to buy land right on our doorstep, and pay a outrageous price for it, our money and taxpayers money. Ruining our land with their zig zag purchases, only buying a little partial here, and a partial there. The shortest distance between two parts is a straight line. in that direction.

Thank you for your time.

Sincerely,
Hugh Rauguel
RR 2 Box 41
Harvey, N.D. 58341

March 8, 1985

Chairman Miller

Please include this letter in the hearing record for Garrison Diversion.

Please Delete irrigation acres from Garrison Diversion Commission Plan. Reason because of the extra cost for machinery and also the extra interest a farmer would have to pay.

Also rewright the Plan to eliminate permanently Lone tree reservoir.

We are farmers in Ward and McHenry Co.

thank you

Mr & Mrs. Rex Lenton

Norwich N. Dak
Box 35A 58768

Grand Forks, N. Dak
March 5, 1985

Honorable George Miller, Chr.
Subcommittee on Water & Power Resources
Washington, D.C. 20515

Dear Mr. Chairman;

I'm requesting that irrigation be deauthorized and all irrigation supply features be left out of the Garrison Diversion Project. Irrigation is not profitable in the central and eastern part of N. Dak. I request that funding be frozen so no construction will progress or contracts be let out until an acceptable plan can be agreed upon.

I request that this letter be part of hearing record concerning bill HR 1116

Sincerely,
Jean Borie

Eagan, Minn.
Mar. 5, 1985

Honorable George Miller, Chr.
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Chairman;

I'm requesting that irrigation be deauthorized and all irrigation supply features be left out of the Garrison Diversion Project. I also request that funding be frozen so no contracts or construction will progress until an acceptable plan can be agreed upon. With such tight economy I believe we could do well without the irrigation and put the money to better uses

I request this letter be part of hearing record concerning bill H R 1116.

Sincerely,
Lynette Boes
4158 Rahn Rd
Eagan, Minn.

March 7, 1985

Sir:

I am writing in regards to the funding for the "Garrison Diversion Project." I'm asking that the funding for the irrigation portion of the project be deleted. I ask that this letter be made part of the hearing record.

Sincerly Yours,
Terry L Nilson
Sheyenne, N. Dak.
P.O. Box 45 58374
zip code

BEST COPY AVAILABLE

KENT Luttschwager
951 18 Ave S.W.
Valley City,N.D.

Dear George Miller, Chairman
Subcommittee On Water and Power Resources

I am a student at Valley City State majoring in biology. I am strongly against the completion of the Garrision Diversion Project.

There is present farm crisis of which there is a surplus of grain, low farm prices, and high cost of production and land. Something has to be done to help farm prices, not plans to increase production of a product that already is in surplus.

The only products that can be cost effective to produce are corn and alfalfa. Two commodities that are needed in more surplus.

The thing that bothers me most about the project is the impact on the environment. I'm an avid waterfowl hunter. Big water projects do not improve nesting habitat--they destroy it. Draining the most important small wetlands drastically effects the reproduction of waterfowl, as well as many other spieces of birds and mammals.

I'm from Jamestown, North Dakota. The present p lans will make the James River a canal, not the beautiful river that it is that should left alone. I have done a lot of canoeing and camping along the river. It would be a great loss if the river was altered from it's natural state.

Sincerely,

Kent Luttschwager
Kent Luttschwager

Box 40
DAZEY N.D.
58429

March 9, 1985

Honorable George Miller
Chairman Sub Comm. Water-Power Resources
1522 LongWorth Wash. D.C. 20515

Ref. Bill 1116 Concerning Garrison Diversion Project in North Dakota

Dear Mr. Chairman,

I farm and know the economics of farming and am strongly opposed to irrigation aspects of Garrison project.

With the cost of the project, delegated to irrigation, at over a million per farm, we are loosing all sence of reality as to wise use of tax dollars and water resources. In these times, with food production as it is (ie the main problem being over production) not only is this aspect of the project unecessary, we simply can not afford it and the interrest on it for the rest of our lives

Sincerely
Lloyd Wieland.

Hurdsfield, N. Dak
Mar. 8-85

Honorable George Miller, Chr.
Washington, D.C 20515

Dear Mr. Chairman,

I request that irrigation be done through and all irrigating supply features be left out. In fact I request that the whole Garrison Diversion Project be put down the drain. We don't need this project and in a time as this when our budget is so tight, lets leave it out of our budget & leave it out for good! It's a pork barrel project. You should come & see it.

Sincerely,
Elmer Hettel

P.S I request this letter be part of hearing record concerning Bill HR 1116

Valley City Clinic
520 Chautauqua Blvd.
Valley City, N.D. 58072
(701) 845-3532

March 7, 1985

The Honorable George Miller
Chairman of Subcommittee on Water
and Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Miller:

I urge you to defeat the House Bill No. 1116 which authorizes additional irrigation for the Garrison Diversion Project in North Dakota.

Sincerely,

J. W. GOVEN, M.D. [redacted]

03/06/85 JWG [redacted]
03/07/85 kd

GENERAL SURGERY:
C. J. KLEIN, M.D.
M. G. MACHAYYA, M.D.

FAMILY PRACTICE:
P. T. VANGERUD, M.D.
C. E. JENSEN, M.D.
J. W. GOVEN, M.D.
R. A. KRINGLIE, M.D.
W. R. JENSEN, M.D.
J. B. BUHR, M.D.
R. E. WIISANEN, M.D.

INTERNAL MEDICINE:
R. A. LUDWIG, M.D.
ADMINISTRATOR:
R. A. GRAY

1820-10th St. S.W.
Minot, N. Dak.
March 8, 1985

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Miller:

In regard to the Garrison Diversion Project, I request that all irrigation and features supplying irrigation districts be deleted when HR 1116 is rewritten, for the reason of lack of approval by majority who live on irrigated land.

I also ask for halt of construction and funding due to very questionable practicability of the project.

I request that my letter be made part of the hearing record.

Respectfully,
Edna Moen

Turtle Lake, ND
March 6, 1985

Hon. George Miller, Chairman
Water and Power Resources
1522 Longworth
Washington, DC

Dear Sir:

In reference to House resolution H R 116.

The Garrison Diversion Project is not environmentally and economically sound unless it is used only as a Municipal, Industrial, and Rural Water Supply with water supply delivered by pipeline; all funding for irrigation should be deleted.

When the farmers are burdened with unsaleable surpluses it does not make sense to subsidize a few farmers at a cost of over four thousand dollars per acre to produce more.

I would like to have this testimony made a part of the hearing record.

Respectfully,

Leonard Johnson

March 5, 1985

Honorable George Miller
Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Sir:

I feel that the irrigation portion of Garrison Diversion is not acceptable. In times when farmers are going broke, how can you spend taxpayers money on subsidized irrigation?

Our state needs rural water systems, not irrigation.

Please enter this letter for testimony.

Sincerely,

Alvin Neuman
RR 1
Fessenden, ND
58438

Hurdsfield, N Dak
Mar 8 - 1985

Honorable George Miller, Chr.
Washington, D.C. 20515

Dear Mr Chairman
I request that irrigation be [illegible] and all irrigating [illegible] features be stopped. N. Dak is not suitable for irrigation. I request that all funding for contract [illegible] be frozen and be frozen till [illegible] and the Garrison Diversion Project for irrigation of water [illegible] that's [illegible] the Garrison [illegible] Project and then [illegible] Project [illegible] [illegible] of [illegible] with the [illegible] Garrison Project [illegible] support the money [illegible] for [illegible] entire purposes. [illegible] going to be [illegible] to [illegible] that.

I request [illegible] of the [illegible]
Bill H R 1116 [illegible] for [illegible]

Grand Forks N D.
3-4-85

Honorable George Miller Chairman
Sub Committee on Water & Power Res
1522 Longworth Wash. D.C.

Dear Mr Chairman

I own land near the New Rockford Canal Area. and am Writing to Request that irrigation supply features be left out of the N D. Garrison Div Project

Irrigation is Not Needed Nor is it profitable in Central and eastern No Dak. along the James River I would also request funding be frozen so No More Construction Will be done. ~~a or~~ and No More Contracts be let until an acceptable Garrison plan be Made, and the huge sums of Money that so few farmer are to receive to irrigate land is surely Wrong $5000.00 $6000.00 per acre, When we already have a surplus over supply of farm products. I would also request this letter be part of hearing record Concerning Bill HR 1116

Thank you
Paul Baue
2205 So 17th
Grand Forks N D.
58201

Fessenden, N. Dak.
58438
Mar 2, 1985

Honorable George Miller, Chairman
Subcommittee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Congressman Miller:

In reference to Bill #1116 it is requested that the irrigation features of Garrison Diversion be deauthorized and removed from the project. Since a surplus of agricultural products is being produced there simply is no need for irrigation which would produce more and further depress prices forcing more families off the farms.

It is also requested that this letter be made a part of the irrigation hearing record.

Thank you kindly,

Sincerely yours
Gay Schultz

WARREN CHAPPELLE
608 WEST PLEASANT DR
PIERRE SD 57501 27AM

Western Union Mailgram

4-0282659058 02/27/85 ICS IPMRNGZ CSP WHSB
6052241549 MGMS TDBN PIERRE SD 169 02-27 0249P EST

RICHARD MEDSON CARE DAVID GARDINER SIERRA
CLUB
330 PENNSYLVANIA AVE SE
WASHINGTON DC 20003

RICH AS YOU MAY BE AWARE OUR CHAPTER BOARD OF DIRECTORS SENT A RESOLUTION TO THE NATIONAL AUDUBON SOCIETY BOARD PRIOR TO THEIR LAST MEETING REQUESTING THAT THEY REMOVE THEIR "WHOLE HEARTED" ENDORSEMENT OF THE GDU COMMISSION PROPOSALS.

TO THIS POINT IN TIME WE HAVE RECEIVED NO RESPONSE FROM THE CHAIRMAN OF THE NATIONAL BOARD THE PRESIDENT OF THE SOCIETY NOR OUR NATIONAL BOARD MEMBER FROM IOWA.

WE ARE CONCERNED THAT THE POSITION OF THE NATIONAL AUDUBON SOCIETY DOES NOT ADEQUATELY REFLECT THE POSITION OF LOCAL AUDUBON MEMBERS IN THIS AREA.

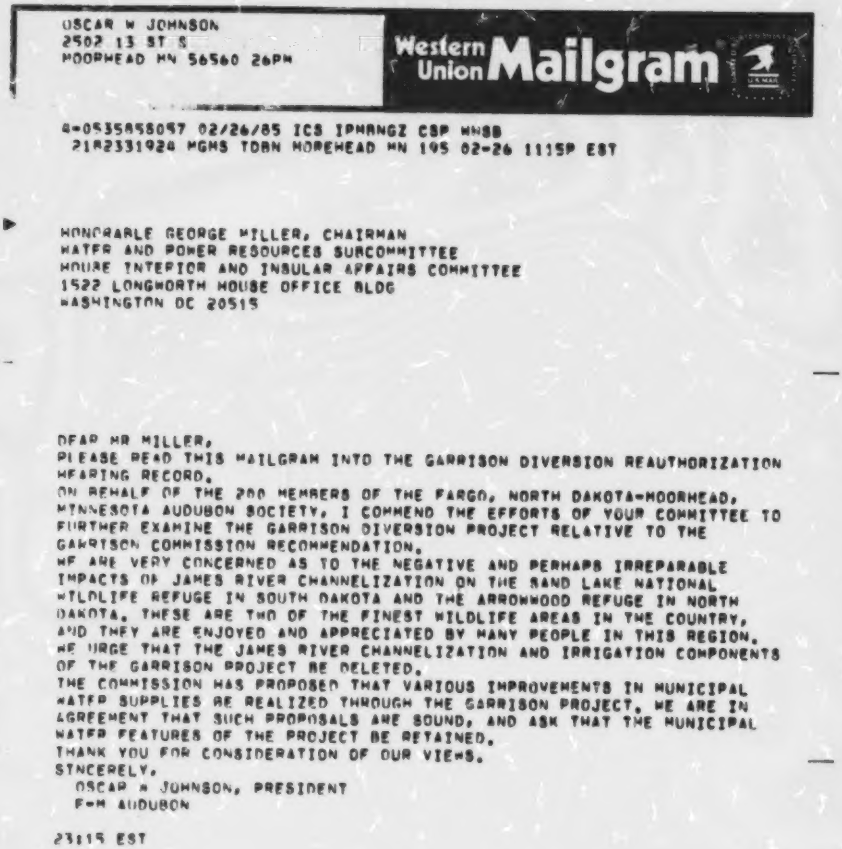
THEREFORE WOULD YOU PLEASE CONVEY THE MESSAGE TO THE CONGRESSIONAL COMMITTEE THAT BASED ON THE IMPACT IN THE JAMES RIVER BASIN THE MISSOURI BREAKS AUDUBON SOCIETY DISAGREES WITH THE NAS POSITION ON GDU COMMISSION RECOMMENDATION.

OUR CHAPTER WAS FORMED WHEN THE JAMES RIVER WAS THREATENED BY THE OLD DAME PROJECT. OUR MEMBERS CONCERN OVER THE JAMES RIVER HAS NOT DIMINISHED.

AMY CHAPPELLE PRESIDENT MBAS

14:49 EST

MGMCOMP



OSCAR W JOHNSON
2502 13 ST S
MOORHEAD MN 56560 26PM

Western Union Mailgram

4-0535858057 02/26/85 ICS IPMRNGZ CSP MNSB
2182331924 MGMS TDBN MOREHEAD MN 195 02-26 1115P EST

HONORABLE GEORGE MILLER, CHAIRMAN
WATER AND POWER RESOURCES SUBCOMMITTEE
HOUSE INTERIOR AND INSULAR AFFAIRS COMMITTEE
1522 LONGWORTH HOUSE OFFICE BLDG
WASHINGTON DC 20515

DEAR MR MILLER,

PLEASE READ THIS MAILGRAM INTO THE GARRISON DIVERSION REAUTHORIZATION HEARING RECORD.

ON BEHALF OF THE 200 MEMBERS OF THE FARGO, NORTH DAKOTA-MOORHEAD, MINNESOTA AUDUBON SOCIETY, I COMMEND THE EFFORTS OF YOUR COMMITTEE TO FURTHER EXAMINE THE GARRISON DIVERSION PROJECT RELATIVE TO THE GARRISON COMMISSION RECOMMENDATION.

WE ARE VERY CONCERNED AS TO THE NEGATIVE AND PERHAPS IRREPARABLE IMPACTS OF JAMES RIVER CHANNELIZATION ON THE SAND LAKE NATIONAL WILDLIFE REFUGE IN SOUTH DAKOTA AND THE ARROWWOOD REFUGE IN NORTH DAKOTA. THESE ARE TWO OF THE FINEST WILDLIFE AREAS IN THE COUNTRY, AND THEY ARE ENJOYED AND APPRECIATED BY MANY PEOPLE IN THIS REGION.

WE URGE THAT THE JAMES RIVER CHANNELIZATION AND IRRIGATION COMPONENTS OF THE GARRISON PROJECT BE DELETED.

THE COMMISSION HAS PROPOSED THAT VARIOUS IMPROVEMENTS IN MUNICIPAL WATER SUPPLIES BE REALIZED THROUGH THE GARRISON PROJECT. WE ARE IN AGREEMENT THAT SUCH PROPOSALS ARE SOUND, AND ASK THAT THE MUNICIPAL WATER FEATURES OF THE PROJECT BE RETAINED.

THANK YOU FOR CONSIDERATION OF OUR VIEWS.

SINCERELY,
OSCAR W JOHNSON, PRESIDENT
F-M AUDUBON

23:15 EST

MGMCOMP

BEST COPY AVAILABLE

Water Project Backed Despite Fiscal Austerity

Interior Defends North Dakota Plan

By Dale Russakoff
Washington Post Staff Writer

While President Reagan moves to slash Agriculture Department subsidies to thousands of farms in the name of fiscal austerity, the Interior Department is proposing to irrigate 406 farms in North Dakota at a cost of more than $1.6 million each.

Assistant Interior Secretary Robert N. Broadbent told the House subcommittee on water and power resources yesterday that the administration supports the irrigation features of a compromise plan for the Garrison Diversion Unit, one of the largest western water projects under construction.

"I come from the most irrigated state, but I wonder how we justify this at this particular time," said subcommittee Chairman George Miller (D-Calif.), who also sits on the House Budget Committee, where one day earlier he heard Office of Management and Budget Director David A. Stockman's call for draconian cuts in farm subsidies.

"There's not a member of this subcommittee that doesn't have a project in their district, but it's a much different day," Miller said.

The Garrison proposal, which would transport water from the Missouri River to farms and towns around North Dakota, has a price tag of $1.1 billion—including $673 million to irrigate 406 of the state's 36,000 farms and $401 million to build new drinking-water systems for 376,000 people in 130 communities.

The irrigation costs would be repaid by farmers without interest, which translates into an additional $600 million subsidy, Miller said.

Stockman plans to take no position on a bill authorizing the project, according to spokesman Edwin L. Dale Jr., "and that includes not opposing it." The bill, drafted by Interior, was introduced by Rep. Byron L. Dorgan (D-N.D.).

The survival of costly western water projects, even in times of tight money, is a time-honored Washington tradition. But Garrison appears almost inviolate because it represents a delicate compromise worked out over several years by Congress, North Dakota officials, environmentalists, farmers, the administration and the government of Canada.

Garrison for years was branded a "dinosaur"—designed to irrigate 250,000 acres of farmland, and in the process to flood 70,000 acres of prime waterfowl habitat while possibly polluting Canadian rivers. It was to cost $1.3 billion, and many farmers said they planned to use their irrigated acres to grow wheat and corn, already in surplus.

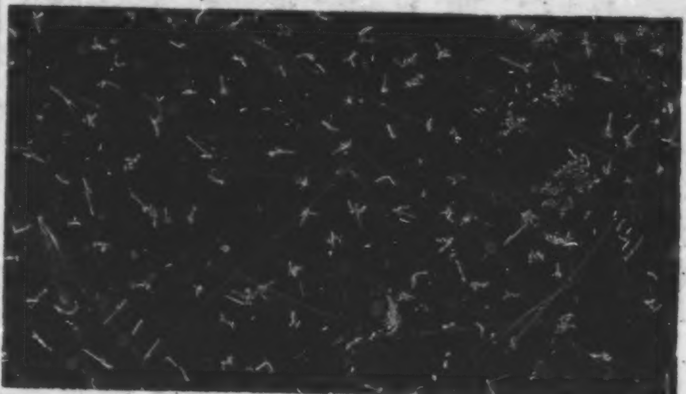
As opposition grew, Congress last year froze funding for the Garrison project and created an independent commission to convert the "dinosaur" into a project that could meet North Dakota's modern water needs. The compromise, endorsed by Interior, would reduce the area to be irrigated to 130,000 acres and use the savings to build new drinking-water systems, because current supplies are badly contaminated. State officials have proposed a plan to halve the drinking-water costs, to about $200 million.

Even longtime Garrison opponents such as the National Wildlife Federation and the National Audubon Society endorsed the compromise yesterday in the name of putting the long controversy to rest. But officials of both groups expressed ongoing concern about environmental costs of the project.

Washington Post 3/1/85 pg A4

Audubon *Action*

February 1985



The controversial Garrison Diversion plan in North Dakota has been modified. (Terrence Moore)

Garrison Finally Diverted

AT PRESS TIME it appeared that the commission appointed by former Interior Secretary William Clark at the direction of Congress to find the middle ground in the Garrison Diversion debate had agreed on a compromise that National Audubon Society—the project's chief opponent—could support. If the compromise holds, it could end one of the longest, most expensive conservation battles in Audubon history.

"The process worked because of the heroic efforts of the commission," said Glenn Paulson, Audubon's senior vice-president for science and sanctuaries. Paulson has been coordinating society activities related to the North Dakota irrigation project.

The Lonetree and Taayer reservoirs, which would have flooded valuable waterfowl habitat, will not be built. Only five rather than 12 wildlife refuges will be adversely affected. Missouri River organisms will not be channeled into Canada's watershed, and millions of tax dollars will be saved.

While the compromise will benefit wildlife, the real winners are the people of North Dakota, according to Paulson. The new plan will offer treated water supplies to 130 communities in the state and provide irrigation for 130,000 acres, down from the 250,000 acres previously authorized.

The dramatic and historic compromise heralds a new era in dealing with costly and environmentally destructive water projects. A complete report, including an account of Audubon's 12-year involvement, will be featured in the April *Audubon Action*. □

Fessenden, North Dakota
March 7, 1985

Honorable George Miller, Chairman
House Interior and Insular Affairs Committee
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D. C. 20515

Dear Congressman Miller:

I'm writing this letter to express my views concerning the Garrison Diversion Unit in North Dakota.

I don't believe the irrigation part of the project should be built because it is not cost effective (see pages 59-108, enclosed Staff Report.) The project is not needed because of the agricultural surplus, the Canadian concerns, and the various environmental concerns. Most important, I don't believe the public should subsidize an individual farmer to the tune of a million or more dollars when the government (so we are told) is trying to reduce the deficit.

After twenty years since the project was authorized and the expenditure of some $213,000,000. The conclusion of the Garrison Diversion Unit Commission that the authorized plan shouldn't be built at this time. They did recommend an alternative project which is a good compromise, but the irrigation part of the commission plan is not cost effective, and it does contribute to the agricultural surplus.

Although I'm willing to accept the commission plan as a compromise, I believe a new policy ought to begin in the financing of government public works projects. Groups ought to be able and willing to eventually pay a major share of the part of any project that benefits them.

A policy of major local cost sharing would eliminate much of the pressure put on Congress to finance local public works projects. A good example is the Garrison Diversion Unit. When a billion or more dollars is spent on a project, there is bound to be some good accomplished, but even that is questionable in the case of this project. North Dakota has less than 1/300th of the population of the United States, and if we can talk the rest of the country to spend 299 plus dollars to every one we spend, it would take a terrible project not to be of some financial benefit to us. Such a situation puts undue pressure on state political leaders to support any project where federal money is involved. It also puts undue pressure on the U. S. Congress.

Another benefit of more realistic cost sharing would be to force federal agencies, in this case The Bureau of Reclamation, to make a more realistic assessment of any project they propose. The easy water projects have already been built, and with the passage of time water projects are going to be more marginal, and some means must be found to eliminate those projects that are inefficient.

For the above reasons I would recommend that the Garrison Diversion Unit be scrapped. Then instruct the Bureau of Reclamation to design a new master plan for water development in N. Dak. Begin any development in smaller units of a master plan. Some of the first projects should begin on the Fort Berthold and Standing Rock Indian Reservations because they gave up over 40% of the land inundated by the main stem dams in North Dakota. (see pages 48 Indian Lands, bottom of page and page 42 of Staff Report.)

Thank you for your time.

Yours truly,

Orval C. Hovey

Orval C. Hovey

MAR 12 1985

To the Honorable George Miller,

I would like to briefly offer a few comments on how I would like to see the Garrison Diversion Project reauthorized.

First, I feel the irrigation features of the project should be dropped. This would call for a huge and expensive system of canals and reservoirs, which would result in the destruction and degradation of 1,000s of acres of prairie wetlands, native prairie, and already productive farmland. It is also a very inefficient use of Missouri River water, as much would evaporate and/or seep through the canals prior to reaching eastern North Dakota.

A much wiser and environmentally acceptable alternative would a pipeline system, to provide municipal and industrial water to eastern North Dakota communities. This would be a great deal more efficient use of this valuable water resource. This recognizes North Dakota's long-standing claim to Missouri River water, and uses it in a much wiser capacity. Not only would a greater number of North Dakotans benefit from this type of system, it would also answer the concerns that Canada and South Dakota have expressed about impacts on their residents and environment.

At a time when grain surpluses are having an adverse impact on the farm economy, does it really make sense to subsidize landowners, at the price of $1.6 million per household, to produce more grain through irrigation? I believe the answer is obvious.

I respectfully request that this correspondence be made a part of the Garrison project hearing record. Thank you for your time.

Sincerely,
Brad Knudsen

Brad Knudsen
208 College St. SE, #3
Valley City, ND 58072

Honorable - George Miller Chairman
Int Committee on Water & Power Resources
1522 Longworth Wash D.C. 20515
Dear Mr. Chairman

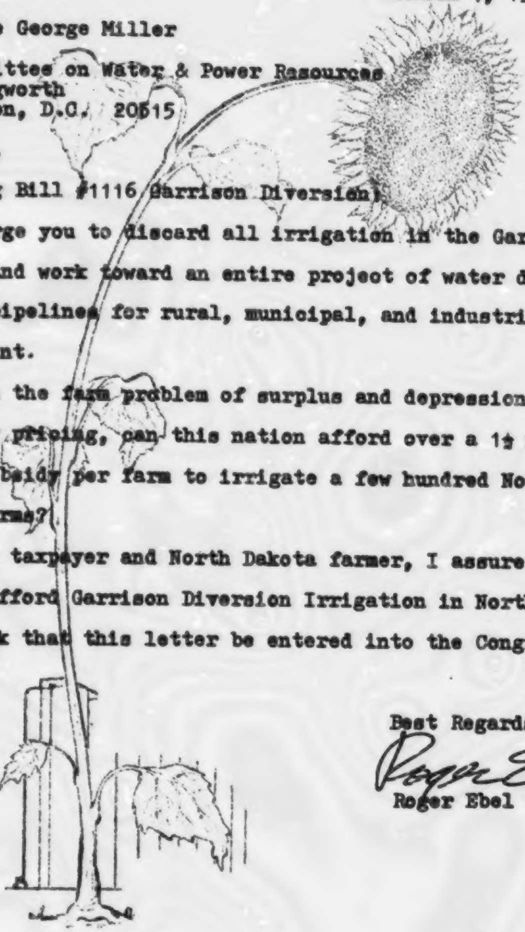
Manfred N. Dak.
3-3-85

I am a farmer in N. Dak wanting to request that irrigation be deauthorized, and all irrigation supply features be ~~[illegible]~~ left out of the N. Dak Garrison Div Project, irrigation in central or eastern N. D. is not viable, or profitable I would also request funding be frozen, so no construction will proceed, or any more new contracts be let until an acceptable Garrison Plan be made. I also ask this letter be part of hearing record concerning bill H. R. 1116

Thank you.

Ervin Bosse
Manfred N. Dak.
58465

Roger Ebel
STATE APPROVED CLEANING PLANT
– Grower and Processor of Registered and Certified Seeds –
Fessenden, N. Dak. 58438
Phone 547-3214



March 4, 1985

Honorable George Miller
Chairman
Sub Committee on Water & Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Sir,

Regarding Bill #1116 Garrison Diversion)

I urge you to discard all irrigation in the Garrison Project and work toward an entire project of water distribution through pipelines for rural, municipal, and industrial water development.

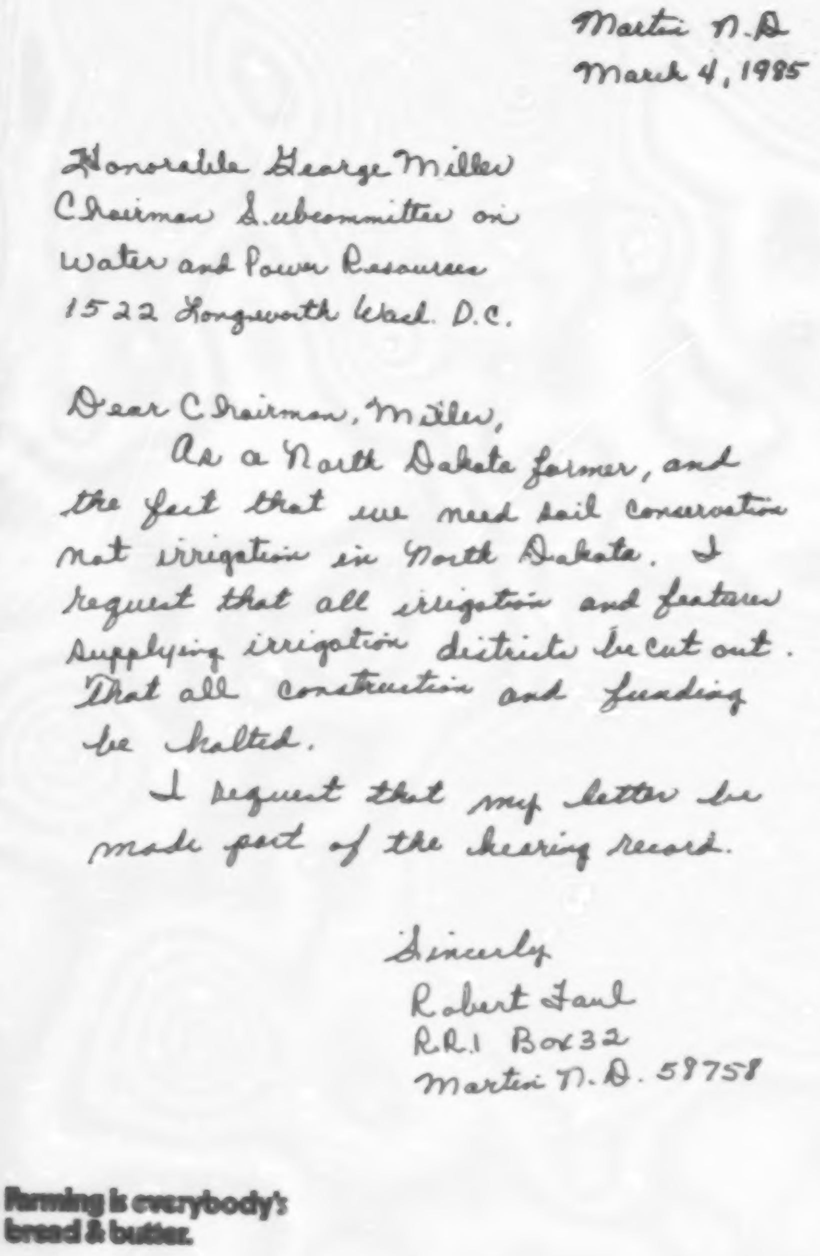
With the farm problem of surplus and depression type commodity pricing, can this nation afford over a 1½ million dollar subsidy per farm to irrigate a few hundred North Dakota farms?

As a taxpayer and North Dakota farmer, I assure you we can not afford Garrison Diversion Irrigation in North Dakota.

I ask that this letter be entered into the Congressional Record.

Best Regards,

Roger Ebel
Roger Ebel



Martin N.D
March 4, 1985

Honorable George Miller
Chairman Subcommittee on
Water and Power Resources
1522 Longworth Wash. D.C.

Dear Chairman, Miller,

As a North Dakota farmer, and the fact that we need soil conservation not irrigation in North Dakota. I request that all irrigation and features supplying irrigation districts be cut out. That all construction and funding be halted.

I request that my letter be made part of the hearing record.

Sincerly
Robert Faul
RR.1 Box32
Martin N.D. 58758

Farming is everybody's
bread & butter.

D. L. PEARSON, D. V. M.
ROUTE 2
JAMESTOWN, NORTH DAKOTA 58401
TELEPHONE (701) 252-[illegible]

March 3, 1985

Honorable George Miller, Chairman
Water and Power Resources Subcommittee
House Interior and Insular Affairs Committee
1422 Longworth House Office Building
Washington, D. C. 20515

Dear Chairman Miller:

I was surprised to learn a week ago that your Subcommittee was holding hearings on the Garrison Diversion Unit. Although I have attempted to follow the issue closely, the first indication in the local press that the Congress was about to deal with the Garrison Diversion Unit Commission's report was a news item (copy enclosed) appearing on February 23rd which simply mentioned that Governor Sinner, while attending the National Governor's Association meeting, would "remain in Washington . . . to testify before a U. S. House subcommittee hearing on the recommendations of the Garrison Diversion Unit Commission."

Typically, the North Dakota Congressional Delegation, the Governor's Office and the Garrison Diversion Conservancy District carefully withheld information regarding your Subcommittee's hearing from the people of North Dakota while State and Conservancy District officials traveled to Washington at public expense to promote the project. Thus, project proponents appeared before your Subcommittee at public expense, while the people of North Dakota were not told of your Subcommittee's hearing or how they might participate. This is, of course, the strategy that the State of North Dakota and the Garrison Diversion Conservancy District have used for 20 years to ensure that the project proponents' views will dominate in hearings on the Garrison project. Unfortunately, the conspiracy to keep the public in the dark about the Garrison Diversion Unit now appears to have been joined by the National Audubon Society, which used to attempt to inform people about important activities on the Garrison Diversion Unit, but, since May, 1984, has made a concerted effort to exclude the people of North Dakota, including its own members, from substantive participation in resolving the problems of the Garrison Diversion project.

It is important, therefore, that your Subcommittee recognize that neither the Governor, the Garrison Diversion Conservancy District, the North Dakota Congressional Delegation, nor the National Audubon Society can claim legitimately to speak for or represent the people of North Dakota on the Garrison Diversion project.

It is important also for your Subcommittee, and the Congress, to recognize that, except for recommending the preservation of Kraft Slough, the Garrison Diversion Unit Commission has failed totally in its Congressional charge to recommend development alternatives which would lead to the early resolution of the significant economic, environmental and international problems of the Garrison Diversion Unit "as presently authorized." The reason the Commission failed so dismally to resolve the problems of the authorized project is that it did not recommend that a single feature or a single acre of irrigable land of the original 250,000 acre project - not even the Taayer Reservoir (Kraft Slough) - be deauthorized! Quite the contraty: the Commission actually recommended that 70,480 acres of new, unauthorized irrigation development be added to the 250,000 acres of authorized irrigation, creating a 320,480 acre project, which would only compound the economic, environmental and international problems the Commission was supposed to resolve.

It is both astonishing and dismaying that, after spending four months and millions of tax dollars, the Garrison Diversion Unit Commission failed so completely to deal effectively with the problems it was supposed to resolve. It is now clear, however, that the Congress must do what this hastily conceived and prematurely aborted Commission was unable or unwilling to do: resolve the problems of the Garrison Diversion Unit. This can be done only by deauthorizing the original project and replacing it with a project which will meet legitimate water needs of North Dakota without the severe economic, environmental and international impacts of the authorized project. This can be done quite simply and rationally by eliminating the irrigation development; it cannot be done with the irrigation development, because it is the irrigation which causes the problems.

There is a legitimate need in many areas of North Dakota for improved municipal and rural domestic water supplies - a fact widely known in the State and recently confirmed by the Commission. There is no need, or rational basis, for federal irrigation development at an average cost of more than $5,000 per acre on land that, at best, could be purchased today for a tenth of that amount - another fact widely known in the State but overlooked by the Commission. In fact, there is not a potential irrigator in the project area who, given the choice, would not take 3 percent annual interest on the federal costs to bring irrigation to his land over the irrigation itself. Clearly, both the farmers and the taxpayers would be farther ahead.

Even ignoring the serious economic, environmental and international problems posed by the Garrison Diversion Unit as a whole, federal irrigation development simply does not make economic sense for farmers in North Dakota today. As you are well aware, Washington has been besieged recently by farmers (and North Dakota legislators) proclaiming the plight of the farm economy. The problem, basicly, is a combination of low farm commodity prices (caused in substantial part by overproduction) and high interest rates.

It simply does not make sense, therefore, to spend over $670 million on federal irrigation development ($1.6 million per farm) to help 400 farmers produce more, and, in the process, suppress commodity prices further for all farmers. Ironically, this massive federal irrigation subsidy would not help even the 400 farmers who would be its supposed beneficiaries. Not only would their increased production contribute to further surpluses and suppressed prices, but irrigation development would force those farmers to escalate their high interest rate indebtedness to purchase irrigation equipment - in order to grow more to sell at an even greater loss. This is not simply hypothetical speculation; it is exactly what is happening to irrigators throughout North Dakota today. Irrigators are selling out or reorganizing to avoid bankruptcy at a far higher rate than dryland farmers.

The Garrison Dviersion Unit's irrigation development would, therefore, only intensify the economic problems of farmers in North Dakota, first, by increasing overproduction and suppressing commodity prices even further, and, second, by increasing the high interest rate indebtedness of those farmers who would receive project water.

What, then, should the Congress do about the Garrison Diversion Unit?

First, deauthorize all irrigation features and development under the project.

Second, authorize a municipal and rural water project designed to meet legitimate water needs, utilizing groundwater supplies where available and Missouri River water, conveyed by pipelines,where necessary.

Third, if the Congress seriously decides to help farmers in North Dakota, use the irrigation development costs of the project to make low interest loans available to farmers. (Indeed, the $1.1 to $1.3 billion cost of the Garrison Diversion Unit likely would be sufficient to pay off all existing farm debts in North Dakota.)

At a time when essential government programs benefitting millions of people are being cut, and when the national economy is floundering under an escalating federal deficit, it would be not only irrational, but irresponsible, for the Congress to continue construction of a project which will only compound the economic problems plaguing agriculture. Your Subcommittee can begin resolving the two-decade controversy over the Garrison Diversion Unit by recommending deauthorization of all of the project's irrigation development. To do less will only compound the dismal failures of the Garrison Diversion Unit Commission.

I would like to request that this letter be included in the record of the Water and Power Resources Subcommittee's hearing on the Garrison Diversion Unit.

Thank you.

Sincerely,

Gary L. Pearson

Gary L. Pearson, D.V.M.

Page TWO, The Jamestown, ND Sun, Saturday, February 23, 1985

city/state

Sinner tending to farm concerns, Garrison Diversion in Washington

Gov. George Sinner will be in Washington, D.C., Sunday through Tuesday for the annual winter meeting of the National Governors' Association.

Many of the programs, discussions and meetings involving North Dakota's governor will concern agriculture and related issues.

"In addition to the various work sessions and discussions, this meeting should provide an excellent opportunity for farm-state governors to make their concerns known to Congress and the Reagan Administration," Sinner said.

Sinner will remain in Washington following the NGA session to testify before a U.S. House subcommittee hearing on the recommendations of the Garrison Diversion Unit Commission.

The NGA chairman, Kansas Gov. John Carlin, has honored Sinner's preferences and appointed North Dakota's governor to serve on the NGA's Agriculture Committee and the International Trade and Relations Committee.

Sinner and the other governors will have two sessions with President Reagan at the White House. They are scheduled to spend Sunday evening there, and return to the White House for a one-hour meeting Monday morning.

Sinner also plans to attend NGA sessions on prison system problems and on federal tax policies.

The governor will stress the importance of the plan advanced by North Dakota officials for municipal and industrial water use under the project. While in Washington, Sinner will also meet with Interior Department officials concerning the Garrison project.

On Monday and Tuesday, several members of the North Dakota Legislature will be in Washington along with delegations from other farm states to push for a stronger federal farm program.

Harvey, N. D.
March - 4 - 85

Honorable George Miller
Chairman - of Subcomittee of Resources 1522
Longworth, Washington. D.C. 20515.

In view of the Agriculture Problems. Farmers are going broke. Many are in financial trouble because of low farm prices, because of large Wheat & other grain surpluses. Farmers have to be Subcidized by the government to stay in bussiness.

In view of the National debt which almost scares one to death, it seems absolutely unthinkable that the government would spend Billions of dollars to raise more surplus grain by irrigating.

I definately suggest that all irrigating for farm grains be junked.

Garrison Deversion is absolutely a boondogle.

I request this letter be entered into the Congressional records.

Sincerely. Mrs. Anna Seibel
Harvey, N. Dak. 58341

NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
1800 Massachusetts Avenue, N.W. Washington, D.C. 20036/202-857-9500

March 1, 1985

Honorable George Miller
Chairman, Subcommittee on Water and Power Resources
Committee on Interior and Insular Affairs
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

We are writing this letter to comment on H.R. 1116 introduced by Representative Dorgan.

The purpose of this bill is to implement recommendations made pursuant to Public Law 98-360 by the Garrison Diversion Commission. The National Rural Electric Cooperative Association consistently supported the Garrison Irrigation Project. Last year in my testimony before the Subcommittee on Energy and Water Development of the Committee on Appropriations, both in the House of Representatives and the Senate, we supported the appropriation request of $53.6 million in F.Y. 1985 to provide funds for those features of the project recommended by the Bureau of Reclamation of the Department of the Interior.

We continue to support the Garrison Irrigation Project; however, we must object to that part of the bill which specifies that M&I water costs be subsidized by power users. This would be a serious departure from Reclamation law. As the Subcommittee knows, power users repay, through appropriate rates, all power costs with interest; in addition, power bears those irrigation costs which are beyond the ability of the water users to repay.

The proposal to have Missouri Basin power users subsidize M&I water is in conflict with our resolution concerning Federal power project studies which was unanimously passed on February 6, 1985 at our 43rd annual meeting in New Orleans, Louisiana. This resolution states in part:

> "We oppose any attempts to modify the traditional methods of determining the actual costs of (electric) service.
>
> "We oppose any changes in Federal power marketing practices and policies inconsistent with existing law and urge the Administration to drop its efforts to create rates which would not be actual cost based as stipulated by existing

> power marketing laws. We commend the Congress for its opposition to these efforts and urge it to continue to support cost-based ratemaking and related arrangements that have established a yardstick for competition in the electric industry and have resulted in efficient use of water resources."

The membership also adopted a resolution entitled "Surcharges on Federal Power." This resolution states in part:

> "The financing of water projects through the placement of surcharges upon the sale of power produced by Federal dams is being pursued by certain governmental entities.
>
> "The placement of these surcharges on existing power sales would create financial hardship for the consumer-owned electric systems.
>
> "We totally reject this proposed alternate method of financing water development but vigorously support construction by the Federal Government as envisioned in authorizing legislation and urge the repayment of these developments through the sale of project power in accordance with existing legislation and repayment principles."

In summary, we reiterate our support for the Garrison Irrigation Project and urge the Subcommittee in acting on Garrison legislation to re-examine the principles of Federal Reclamation law that municipal water costs not be imposed on power users.

We respectfully request that this letter be made part of the record of the hearings.

Sincerely yours,

Bob Bergland

Bob Bergland
Executive Vice President

BB:ajl

Mid-West Electric Consumers Association, Inc.

EXECUTIVE OFFICE SUITES
27972 MEADOW DRIVE, SUITE 300
P.O. BOX 910
EVERGREEN, COLORADO 80439
(303) 674-6675

LOW COST POWER FOR EVERYONE

MT ND MN
WY SD IA
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February 27, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
House Committee on Interior and Insular
Affairs
Washington, D.C. 20515

Dear Chairman Miller:

Your Subcommittee has before it H.R. 1116 introduced by Representative Dorgan by request. The purpose of H.R. 1116 is to implement recommendations of the Garrison Diversion Unit Commission. One of these recommendations proposes the authorization of certain municipal and industrial water features at an estimated cost of $401 million. Included in that recommendation is a proposal that approximately 80% of the M&I costs be repaid by power consumers of Pick-Sloan power.

The state government of North Dakota expressly recommended to the Garrison Diversion Unit Commission that "Increased Pick-Sloan power revenues should not be considered as a source of repayment for capital costs of municipal projects." In lieu of the M&I works that the Commission included in its recommendation, the state government of North Dakota proposes a less costly, more flexible M&I program with a total maximum cost of not to exceed $200 million, 25% of which would be shared by the state of North Dakota. It is our understanding that Governor Sinner of North Dakota will be presenting the State's M&I alternative in the course of your Committee's hearings.

Mid-West Electric Consumers Association, Inc. strongly supports the position of the State of North Dakota and urges its acceptance by your Committee.

Subsidization of M&I water costs by power users would constitute an inappropriate departure from reclamation law. Under reclamation law, power users repay, through appropriate rates, all power costs, with interest, and in addition, power bears those irrigation costs which are beyond the ability of the water users to repay. Mid-West supports that requirement. It has, since its inception, recognized the interdependence of irrigation and power and has no quarrel with the proposition that reclamation power be the so-called paying partner of federal irrigation development in accordance with reclamation law. However, reclamation law has never countenanced subsidization of municipal and industrial water costs at the expense of the power users. There are no sound reasons of policy why the purchasers of power from federal reclamation projects should be compelled to take on this added cost.

At its just concluded Legislative Policy Meeting here in Washington, members of the American Public Power Association adopted a resolution, copy attached, urging that Congress, in acting on Garrison or other legislation, reaffirm the principle embedded in the federal reclamation laws that municipal water costs not be imposed on power users. Mid-West fully supports that position.

Mid-West, formed in 1958, is a South Dakota non-profit membership corporation headquartered in Evergreen, Colorado. It is the regional service agency of rural electric cooperatives and publicly owned electric systems located in nine of the Missouri basin states: Colorado, Wyoming, Montana, North Dakota, South Dakota, Nebraska, Kansas, Iowa and Minnesota. It is composed of over 300 systems which serve over 3,000,000 consumers. Mid-West's purpose is to foster an adequate supply of low cost and dependable electric power for its members and, generally, to promote the interests of electric consumers in the region. Most, if not all, Mid-West member systems directly or indirectly purchase power generated at Corps of Engineers and Bureau of Reclamation Pick-Sloan Missouri Basin Program hydroelectric plants.

I would appreciate your including this letter in the record of your Committee's hearings on H.R. 1116.

Sincerely yours,
Fred G. Simonton
Fred G. Simonton
Executive Director

Enclosure

cc: Chairman Udall and all Members of the
  Subcommittee on Water and Power
 All Members of North Dakota Congressional
  Delegation
 Governor Sinner
 Garrison Diversion Conservancy District
 Murray Sagsveen, Esq.

OPPOSITION TO SUBSIDIZATION OF MUNICIPAL AND INDUSTRIAL WATER COSTS OF FEDERAL RECLAMATION PROJECTS FROM POWER REVENUES

WHEREAS, under the federal reclamation laws, power revenues do not subsidize municipal and industrial water costs; and

WHEREAS, the Garrison Diversion Unit Commission included in its recommendations a proposal that the foregoing principle of reclamation law be changed so as to require that approximately 80% of the $401 million estimated cost of a recommended municipal and industrial water development be repaid by Pick-Sloan power consumers; and

WHEREAS, the state government of North Dakota has expressly recommended that "Increased Pick-Sloan power revenues should not be considered as a source of repayment for capital costs of municipal projects" and further has recommended a less costly, more flexible municipal and industrial water program under which the state of North Dakota would share 25% of the capital costs;

NOW, THEREFORE, the American Public Power Association:

1. Commends the state government of North Dakota for its opposition to the use of Pick-Sloan power revenues to repay costs of municipal and industrial water development; and

2. Urges the Congress, in acting on Garrison or other legislation, to reaffirm the principle embedded in the federal reclamation laws that municipal water costs not be imposed on power users.

ADOPTED: February 27, 1985

BEST COPY AVAILABLE

To: Honorable George Miller, Chairman

From: Alice Beauchman
872 North Central Ave.
Valley City, N. Dak. 58072
Alice Beauchman

Re: Garrison Diversion Project

Date: March 9, 1985

This letter is to express my concern over the Garrison Diversion Project. I understand that the project is being reauthorized and redrafted. I am very much in favor of a scaled down project since there is no hope of the whole thing being scraped. The economic and environmental cost of the irrigation project seem to be higher than the benefits that will be derrived from it. I think a plan could be devised that would be less harmful to the environment, cost less taxpayer dollars, and would meet with approval with our South Dakota and Canada neighbors. I have heard and read some of these alternatives, I am sure you have kept well abreast of them also. Please consider some of these alternatives.

Thank you for your time.

To: The Honorable George Miller
Chairman
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D.C. 20515

To be part of the record.

Dear Sir;

I feel that the deauthorization of irrigation and irrigation districts in the Garrison Diversion Project is necessary. With the agricultural economy in the state that it is in, it just doesn't seem feasible. The enviromental impacts on rivers, wetlands and refuges would definetly ruin some of the finest wildlife areas that are left today.

Along with desroying beautiful wildlife area, the Lonetree Project would also be ruining very farmable land in that area. This land seems to be productive without the irrigation project.

I also feel that the pipeline systen for municipal and industrial supply and use, can be economically feasible and can work. It may be beneficial to industry in the future.

However, the irrigation plan which the commission has proposed, will not solve the enviromental or ecoromic problems which the unit has authorized.

Being a lifetime resident of the state, I feel that the preservation of such beautiful areas as the ones that this state possesses is necessary.

Thank you for your time.

Tim Pinke
1330 Second Avenue N.E.
Valley City, No. Dak.
58072

March 8, 1985

Honorable George Miller
Chairman of the subcommittee on Water and Power Resources
1522 Longworth
Washington, D.C.
20515

Dear Mr. Miller,

Regarding the final decision of the study commission on the Garrison Diversion Project: it seems that after the committee heard and analyzed a great deal of information, they came to the conclusion that Garrison water should not be sent down the Sheyenne River via the Lonetree Reservior. However, in what appears to be a last minute sellout to high pressure, the commission decided not to de-authorize Lonetree Reservior—that segment of Garrison Diversion strongly opposed by our Canadian neibors because of the potential contaminating effects it would have on their waters.

Additionaly, instead of reducing the devastating effects this project would have on the land, the commission left the door open to an even greater acreage to be affected by the irrigation project.

In light of the price depressing surpluses American farmers are up against today, I see little need for a tremendously costly project to increase the production of an already productive area. Furthermore it also appears that shaky statistics have been used to make the cost/benefit ratio acceptable and justify Garrison Diversion.

This project should be de-authorized as such. In its place, pipelines could be extended to communities truly needing Missouri water for their municipal supply. This could be done with far less destructive impact than the entire massive project would have.

Sincerely,
Rogers, N.D., 58479

(Please include this letter in the hearing record on H.R.1116)

BEST COPY AVAILABLE

Granville - N. Dak.
Mar. 7. 1985.

Honorable George Miller:

I am writing to you in regard to the Irrigation ditch running through our Mc Henry Co and Henrickson Twp
We live in NE¼-154-79 Mc Henry Co and this ditch . runs thru our Twp from the South East Corner to the N.W. Corner and ruins our Whole twp.

And I request that all Irrigation be ilimited or deleted from HR1116 when it is re- written and I ask for all Construction to be halted. please include this letter in the hearing record. Thank you yours truly Earl Everson.

over

this ditch runs three 3 quaters of our land and the ditch will be 50 to 100 foot deep at 30 rods from our house and we will have all dead end roads in our Twp with 1 bridge every 6 Miles.

And our land is good producing 30 to 40 bu wheat each year, I was born and raised here 72 years ago. And made a Nice living ever since

over production has been and allways will be our problem.

Earl.

Thank you again,

March 8, 1985

Honorable George Miller, Chairman
Subcommittee of Water & Power Resources
1522 House Office Longworth Bldg.
Washington, D.C. 20515

Dear Sir;

I just don't understand how in this time of huge federal deficits a project as questionable as the Garrison Diversion Project can even be considered for federal funding. The cost of this boondoggle cannot possibly be justified considering the loss of already productive cropland, river damage and wildlife habitat loss.

Of course, municipal and industrial interests require a reliable water source, but a pipeline system would be a much more economical and efficient alternative. Also this would not have an adverse impact on neighboring states or Canada.

Having followed this issue for a number of years it seems to me that many North Dakota state officials would support anything to get federal dollars pumped into their state without very much regard for the end result.

Why can't a bad project die?

Please make this letter part of the hearing record on the Garrison project.

Sincerely,

Karen Johnson
Karen Johnson
Box J
Malta MT 59538

March 8, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
22 House Office Longworth Bldg.
Washington, D.C. 20515

Dear Chairman Miller;

I understand that Congress is in the process of redesigning the Garrison Diversion Project and would like to offer my opinion on this boondoggle. I am a sportsman, taxpayer and small businessman from Minnesota and am totally opposed to Garrison in its present form.

As a Certified Public Accountant one of my primary complaints about Garrison is its cost. The country simply cannot keep funding inefficient, expensive water projects which have so few benefits! Furthermore the farm crisis is a direct result of excessive federal spending, high interest rates and crop surpluses. The irrigation feature of Garrison will require huge expenditures of public money and increase grain production. Will this worsen the plight of farmers? Congress should act now to eliminate irrigation from Garrison.

I am also a waterfowl hunter and photographer and am deeply concerned about the wetland destruction caused by Garrison. Wetlands are a national resource and are disappearing at an alarming rate. This water project would drain or destroy some of the most productive wetland habitats remaining in the U.S.A. Congress should propose a pipeline water delivery system to cities, towns and reservoirs. A pipeline system would preserve wetlands and be more efficient. It would also strengthen relations with Canada and South Dakota.

Thank you for the opportunity to comment on Garrison. Please place this letter in the hearing records regarding the project.

Sincerely;

Jeff Stutzman

Jeff Stutzman
4410 N. Oak Knoll Terrace
Minnetonka, Minn. 55343

March 8, 1985

To members of the Water and Power Resources Committee:

As one of many people in my area against the Garrison Diversion Project in ND, I am writing this letter. I have grown up on a farm east of Oakes, ND on the west side of Kraft Slough and have been exposed to the research of Garrison for quite some time. I am very familiar with Kraft Slough, the James River, and the surrounding area.

I can't tell you how glad I was to hear that Kraft Slough was removed from the eyes of the project. You really can't imagine the nature in that slough with all its wild life, until you have lived around it and wake up early in the morning and go out and hear all the birds in the slough and the geese flying overhead. It's something that could never be replaced, once destroyed.

To make a long story short, I was reading the final report on the Garrison unit and saw some of the figures given. The one that got me was the cost of getting this water to the farmers which was estimated at $1.65 million per farm. This is ridiculous, we've got farmers in this area that can't even stay above ground with their operations. They can take out 2 million dollar loans and buy all these fancy irrigation systems and farm equipment. Them they or they can't pay it back-file bankruptcy and walk away from it. And we are paying $1.65 in tax money to get water to these people! I'm not saying that is true in all cases, but it sure is in some! While doing this we destroy our precious wild life habitate and dig up half the area for the project. Besides this, the number of farms to be irrigated with this water is reduced from 868 to 408. It doesn't make sense.

I guess I can see water for cities, that's great, but the rest is total foolishness. We've spent so much money on this thing with the Audubon Society fighting it and all the surveying and etc. that goes along with it.

All last summer they spent digging wells for soil tests around Kraft Slough and surveyors spent many hours sleeping in their vehicles along the roads, and it isn't even going to be a part of the project now. That's a lot of money and time wasted and we're the people paying for that! I truly believe this whole project was thought up overnight and somebody had better do some more thinking on it!!

Thank you,

Brian Ringdahl

Brian Ringdahl
Oakes, ND

March 8, 1985

Honorable Geroge Miller, Chairman
Subcommittee on Water and Power Resources
1522 House Office, Longworth Bldg.
Washington, D. C. 20515

Dear Chairman Miller:

As a taxpayer and neighbor of North Dakota, I am greatly concerned about the status of the Garrison Diversion Project. I feel that Congress has an excellent opportunity to redraft the project in a way that is both fiscally wise and environmentally sound. There are two issues which Congress needs to address: Garrison's huge cost and its impact on North Dakota's wetlands and waterfowl resources. I would like to briefly offer my opinion on each.

(1) COST The cost benefit ratio of Garrison is totally unacceptable. The country's budget deficit is already a major concern and it seems ridiculous to spend more money on a questionable project. The irrigation cost/benefit alone is staggering. Recent figures state that it will cost taxpayers 1.6 million dollars for each farm irrigated. How can Congress justify this expense when we are cutting so many other worthwhile government programs? Additionally, the current farm crisis is partially a result of overproduction. Do we really need to spend large amounts of money to irrigate land which will create additional grain surpluses and drive down prices? I recommend that the irrigation portion of the project be removed permantly by Congress.

Another major concern is Garrison's adverse affects on wetlands. The Reagan Administration and Congress have both voiced their support for wetland preservation and it seems ludicrous to fund a project that will destroy thousands of acres of an already dwindling resource. Sportsmen,conservation organizations and professional waterfowl biologists have all recognized the value of North Dakota wetlands and Congress can insure the preservation of these habitats for generations to come by redrafting Garrison. I recommend that Congress develop an alternative water delivery system (pipeline) for municiple use. Not only would wetlands be saved but valuable farmland would not be lost to canals and reservoirs.

Please consider my letter when discussing Garrison. I also request that this letter be part of the hearing record on the Garrison Proposal.

Sincerely,

James W. Stutzman

James W. Stutzman
P.O. Box J
Malta, Montana 59538

Box 689
Malta, MT 59538

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 House Office Longworth Bldg
Washington, D.C. 20515

8 March 1985

Dear Sir,

I am writing this letter to urge you and your committee to discontinue further funding of the Garrison Diversion Project.

I feel that the economic, agricultural, and environmental arguments are too strong to ignore.

To begin with, the costs associated with the irrigation portion of the project are unreasonably high. One estimate places the cost at $1.6 million per farm to be irrigated. Can that be true? If so, how can that level of expenditure be justified.

Secondly, the increased crop production to come from irrigating those 130,000 acres will further aggravate the already severe problem of over-production leading to large surpluses. These surpluses depress crop prices and destabilize the economics of individual farm operators. This project will be unfair to all farmers in the region except the 400 or so who directly benefit. How many farms will be flooded to benefit those farms

Ultimately, government programs which increase crop production without increasing markets have to be paid for twice: once when the program is implemented and administered and again when the government acquires the unsalable commodity. Considering the recent controversy over the proposed farm bail-out, it is inconceivable that Congress should push a program like the Garrison Diversion Project which only aggravates current farm problems and which benefits only a chosen few.

Finally, the environmental costs will be staggering. As designed, this project will impact several National Wildlife Refuges (including Audubon, Arrowwood, and Sand Lake NWR's) numerous U.S. FWS Waterfowl Production Areas and easements so severely that they no longer can fulfill their function. These lands or easements were purchased by the Federal Government for the specific purpose of waterfowl production. Most professional waterfowl biologists feel that some waterfowl populations are in real trouble. Also, there are many Federal programs designed to protect or enhance wetlands for waterfowl production. Let's not have Congress spend more money to finance a program that they know will destroy the value of the initial investment. Such an action can only further erode the already weak confidence that many voters have in elected officials.

Considering the current state of the Federal deficit, farm programs, and voter confidence in elected officials, I urge you to discontinue funding of the Garrison Diversion Project.

Please make this letter a part of the hearing record for the Garrison Diversion Project.

Sincerely

Harvey Nyberg

Harvey E. Nyberg

James B. & Sharon E. Buhr
613 Chautauqua Boulevard
Valley City, North Dakota 58072
(701) 845-5197

March 7, 1985

Honorable George Miller, Chairman
Subcommittee on Water and Power Resources
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Miller:

As I followed the progress of the Garrison Commission and read their Preliminary Final Report I was pleased to see what I understood to be the inclusion of municipal pipeline water supply, limited canalside irrigation, deletion of Taayer and Lonetree reservoirs, and a scaling down of irrigation acreage to preserve wilderness along the James River.

Since the commission staff did not send me a copy of the Final Report, it was only recently that I was made aware that in almost every way except the saving of Kraft Slough (not the surrounding wetlands however), The final plan has all the environmental damage and obscene cost of the original plan and more.

I support the Sierra Club, North Dakota Wildlife Society, the Committee to Save North Dakota, and individual Audubon chapters in North and South Dakota, of which I am a member, in their request that this enlarged project be de-authorized. The remaining 99% of North Dakota farmers who would not benefit from irrigation may have some idea of how part of the billion dollars might be used so help North Dakota agriculture.

If this project were de-authorized, perhaps at a later time a reasonable pipeline system could be devised to replace it, as was done in Sough Dakota with the Oahe Project.

Please read this letter into the proceedings of your committee. Thank you for the work of your committee so far.

Yours truly,

James B. Buhr

BEST COPY AVAILABLE

Granville, North Dakota
March 7,1985

Honorable George Miller
Chairman
Sub-Committee on Water and Power Resources
1522 Longworth,
Washington D.C. 20515

Dear Mr. Miller:

I, Lottie Shipman, daughter of a pioneer and homestead family; life time farm wife and land owner; who believes that the North Dakota farm system has little need for a massive irrigation project.

There fore, I ask that this letter be included in the hearing record on the Garrison Diversion.

I ask, that when your committee , rewrites the authorization bill, for the Garrison Diversion Plan, that they eliminate the irrigation features , in their new plan.

The reason that ygu should d o this is because about when the American Farmers are faced with over production and resulting depressed markets, it wouldn't be feasible to spend such a large amount of federal money to further over production, particularly at a time, when Congress is being pressed to reduce spending.

I will appreciate any consideration given this letter.

Sincerely,
Lottie Shipman
Lottie Shipman
Granville,N.D.
R.R.1 Box 75

5

March 25, 1985
Harvey, N. Dak. 58341

Honorable George Miller:
Chairman Subcommittee on Water & power Resources:

I am a farmer who farms in Sheridan Co., N. Dak. and have seen this Garrison Diversion Project from when they began holding hearings in our town of Harvey, N. Dak.

I have seen the claims they (Bu. Rec.) have made, turn out to be false or only half truths. Example, at time of authorization hearings they claimed the project would create 600 new farms. Impact statements revealed there would be a net loss of farms.

The N. Dak. Garrison Diversion Conservance District and the Bureau of Reclaimation encouraged farmers in the Lincoln Valley District, which they did. Now they find that only about ¼ of the land in the district is irrigable and that the farmers will have to put in drainage tile 8 feet below surface to prevent salinization of soil. As a result, only one farmer, is even considering irrigation, and he no longer farms himself. He has been an outspoken proponent of the project since its beginning, and has been voted out of the irrigation district Board of Directors..

To claim this project is for irrigation is false and a waste of tax payers money.

Sincerely yours,

Monroe Raugust

Monroe Raugust
1537 Garfield St
Harvey, N. Dak.
58341

Ph. 701-324-4072

946 7 Ave NW
Valley City, ND 58072
March 11, 1985

Honorable George Miller, Chair
Subcommittee on Water and Power Resources
1522 Longworth
Washington, D.C. 20515

Dear Mr. Miller:

Your committee is presently holding hearing on the modified Garrison Diversion Plan, and I wish to state that from what I have read of it, the new plan is no better than the 1965 authorized Garrison Project.

The new proposal will still adversely affect over a dozen state and national wildlife refuges and more return flow down the James River will require more channelization and more destruction of a natural river.

In addition Lonetree is still a possibility as is the potential for draining Devils Lake down the Sheyenne River and into Canada.

Finally, North Dakota does not need more irrigation. We produce too much already and there is no guarantee that farmers in areas designated for irrigation will even want to irrigate. Even subsilized, it is too expensive.

Also too expensive is the incredible cost of the irrigation portion of the project, over a million acres per farm under the new plan. Cost per irrigated acre under the Authorized Project was already "3,700" per acre and now it will be higher.

The only portion of the project worth saving is the municipal water supply system using pipeline for delivery.

I urge you to modify the modified version of the Garrison Project even further.

Sincerely,

Richard Betting